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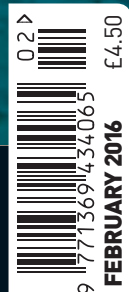


ROAD TEST:
**2.0 TDI
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**DETROIT SHOW
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A4 Saloon
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h-tron quattro concept



Tom Janiszewski reports from the Detroit Show, with a first-hand view of the h-tron quattro concept, when he could get near to it, that is...

AUDI REINFORCED its dedication to alternative-fuel vehicles at the 2016 North American International Auto Show in Detroit, with the world premier of the h-tron quattro concept. A follow-up to the A7 h-tron concept unveiled at the 2014 Los Angeles Auto Show, the concept is packed with cutting-edge technologies, both inside and out, ranging from its hydrogen fuel cells and autonomous driving to vehicle lighting and solar power.

In terms of size, the h-tron quattro fits in between the Q5 and Q7 SUVs, measuring 4.88 metres long, 1.93 metres wide, 1.54 metres tall with a wheelbase of 2.91 metres. Styling is much like that of Audi's current line yet includes new, high-tech details throughout the vehicle. The low roofline tapers towards the rear of the vehicle giving this SUV a more coupé-like appearance, and

yet it still provides a comfortable interior for a driver and up to three passengers.

At the heart of the h-tron quattro is a stack of 330 cells under the bonnet. Fuel cells are nothing new to Volkswagen/Audi: this is their fifth generation of the technology. New materials within the cells reduce weight and improve efficiency and are used for the diaphragms and the bi-polar plates that guide the gasses in the stack. The entire unit is lighter, smaller, stronger and ultimately more efficient than previous generations.

'At the heart of the h-tron quattro is a stack of 330 cells under the bonnet...'

The operating life and responsiveness are improved and the use of platinum is reduced, making the unit less expensive. Hydrogen consumption is also reduced resulting in a fuel cell that achieves an efficiency of 60 per cent.

The fuel cell operates at temperature levels of up to 95 degrees Celsius, and starts easily in temperatures down to minus 28 degrees Celsius. Three hydrogen tanks located beneath the passenger and luggage compartments store enough hydrogen to provide a 600-km (372.5-miles) driving range. One tank is located in the central tunnel between the front seats, and the other two are positioned under the rear seat and cargo area. Like conventional fuel, the tanks can be refilled in under five minutes – much shorter than it takes to fully change a plug-in electric car.



The fuel cells achieve an output of 119 kW (162 PS), and a powerful, compact lithium-ion battery from Audi's plug-in hybrid model provides a temporary boost of 100 kW (134 PS) when accelerating. Each axle has its own electric motor, providing 4-wheel drive with no need for mechanical power transfer from front to rear, thanks to a 90 kW unit powering the front axle, and a electronic management system transferring power when needed to a 140 kW motor driving the rear axle.

In total, the car has a system power of 210 kW (285 PS) and 550 Nm (405.7 lb.ft.) of torque, and it is claimed to be capable of accelerating from 0-100 kph (62.1 mph) in less than 7 seconds and has a governed top speed of 200 kph (124.3 mph).

Much attention has been paid to aerodynamics in an effort to reduce drag (it has a coefficient of just 0.27) and maximise the car's driving range. Side mirrors are replaced with small cameras, and movable panels along the underbody, sides and rear optimise the car's aerodynamics. It also features an adjustable airbag suspension that lowers the body in two stages by up to 30 mm in a further attempt to reduce drag.



Exterior styling is sporty, and shares much of the design language seen in Audi's current line-up. The front of the car features Audi's bold, trapezoidal grille, but because the fuel cell requires a high amount of cool air, the grille is almost completely open. The headlamps, like all of the h-tron quattro's lighting, utilise Matrix laser technology. This OLED (organic light emitting diode) lighting breaks the headlight beams down into thousands of pixels that illuminate the road in high resolution without blinding oncoming drivers.

Wheel arches and rocker panels finished in grey contrast nicely with the h-tron quattro's orange paintwork, and they contribute to the car's overall sporting appearance. Large, 22-inch wheels finished in silver with black inserts feature low-

'Much attention has been paid to aerodynamics in an effort to reduce drag and maximise the car's driving range...'



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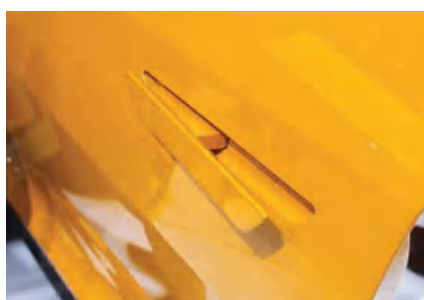
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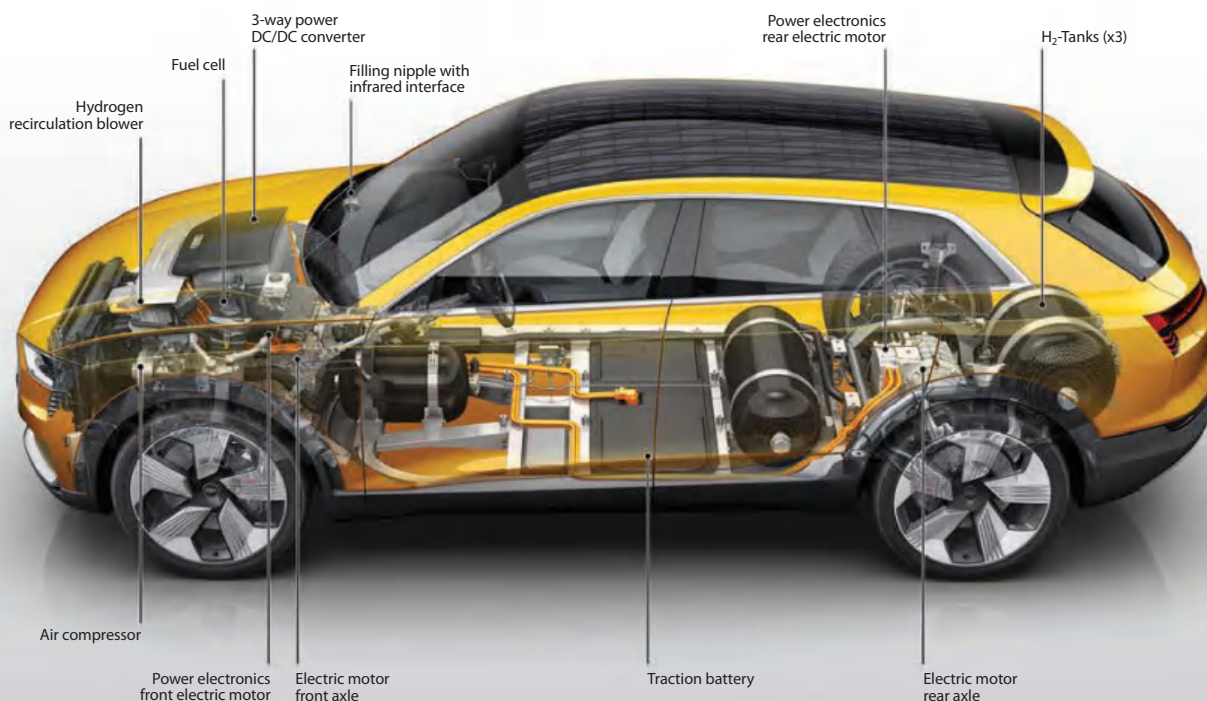
rolling resistance tyres. Motorised door handles fit flush with the body to improve aerodynamics and extend outward when touched to gain entry into the car.

The h-tron quattro's rear profile looks more like that of an estate rather than an SUV, with the tapered roof and low, wide rear window. A speed-activated spoiler extends by up to 100 mm along the upper edge of the rear window, and the lower

edge is underscored by a red LED light bar that visually connects the two OLED tail lamps. A lower aerodynamic panel extends to the rear and works with the spoiler above the window to efficiently move air over and under the vehicle.

The entire roof of the car is a black-finished solar panel that generates up to 320 watts of power to further increase the car's efficiency.

Technology isn't limited to the fuel cells. The h-tron quattro features Audi's autonomous zFAS driving system. Using a collection of radar, camera and surround sensors, the car can pilot itself at up to 37 mph (ideal for congested motorway commutes) while piloted parking also allows the driver to fetch the car from outside the vehicle using either the remote control key or a smartphone.





Once inside the car, the driver is surrounded by large OLED displays rather than traditional analogue gauges. Animated graphics give the two-dimensional displays a 3-D look, and the curved surfaces of the panels are beautiful compared to typical flat screens. Speed, fuel level and driving range are all featured in the central screen in front of the driver. Two touch displays flank the central screen, with the panel on the left used to operate lighting controls and piloted driving features while the one on the right controls the music, navigation and h-tron-specific operation status.

Two additional displays are found on the centre console. One shows the selected drive status and the other display offers gesture control of the climate control system using virtual sliders. Additionally, weather status, appointments and addresses can be called up using assignable preset buttons.


Additional OLED screens are found high on the door panel just ahead of the door handles and serve as digital rear-view mirrors.

As one would expect in such a technology-filled concept car, rear passengers will find a pair of removable OLED tablet screens mounted in the backs of the front seats. Equipped with LTE 4G WiFi, passengers in the h-tron quattro can surf the internet and send e-mails via a high-speed connection.

Behind the rear seats, the h-tron quattro holds 500 litres of cargo. Fold the rear seats down, and cargo capacity expands to 1610 litres. Audi have taken the guesswork out of sorting out how to most efficiently load the boot. Sensors in the tailgate trim monitor the pieces of luggage sitting behind the car and a seven-inch display at the rear of the car then shows the best way in which to load the bags.

Overall, the h-tron quattro was such a hit that it was really difficult to photograph the car without a crowd around it.

While no production plans are set for the h-tron quattro, expect to find technologies such as the autonomous driving and parking to appear in 2017. As for the hydrogen power and its zero-emissions advantages, stay tuned. Experts have suggested that rather than a single alternative to fossil-fuelled motoring dominating the forecourt of the future, we may find room for a variety of solutions.

Whether it is hydrogen with the A7 h-tron and h-tron quattro, or synthetic methane with the A3 and A4 g-tron or purely electric, Audi continues to prove its commitment to multiple alternatives. 

 Extra photo content on iPad edition!



'...The latest A4 has now been reconfigured as an allroad model...'



New A4 allroad quattro

Although rather overshadowed by the h-tron quattro, the NAIAS 2016 (Detroit Show) also saw the world debut of the all-new A4 allroad quattro...

AS WITH PREVIOUS incarnations, the Avant version of the latest A4 has now been reconfigured as an allroad model, featuring the typical hallmarks of off-road-style bodywork, increased ride height and the latest form of the quattro all-wheel drive system.

Bodywork modifications include flared wheelarches and the modified rear bumper, finished either in textured matt grey or painted in the body colour, while the underbody guard and rear diffuser are finished in Selenite silver.

The front end, with its unique bumper and model-specific air intakes, is set off by the vertical chrome slats of the sculpted single-frame grille, with allroad badges featuring on the front wings and tailgate. The higher roof rails round out the typical allroad look.

Xenon headlight units are standard, with LED headlights with dynamic rear turn signals, and Matrix LED headlights with dynamic turn signals front and rear also available as extra-cost options. The top version features traffic sign glare reduction, giving the driver an optimal view of road signs at all times.

At 4750 mm long and 1842 mm wide, the new Audi A4 allroad quattro measures 1493 mm in height, with a wheelbase of 2818 mm, but despite its larger dimensions, the new A4

allroad has a kerb weight that can be 90 kg less than that of the previous model. With the 2.0 TFSI engine, it weighs just 1580 kg (without driver) thanks largely to the use of lightweight construction and a mix of materials that has trimmed 15 kg from the bodysell alone.

The luggage compartment offers a capacity of 505 litres in the standard seating configuration, enlarging to 1510 litres with the rear seats folded down and loaded to the roof. A power luggage compartment cover and electric tailgate are standard, with the options of a rail and load-securing kit, and sensor control so the driver can open and close the tailgate using a foot gesture.

The new A4 allroad quattro is certified for towed loads of up to 2100 kg (with an 8 per cent gradient) and can be specified with an optional trailer hitch that unlocks electronically at the push of a button. Optional equipment also includes the Trailer manoeuvre assist, available on the A4 allroad for the first time, making it easier to manoeuvre a trailer, with the driver steering via the MMI controller.

Engines

The new Audi A4 allroad quattro comes with a choice of 2.0-litre TFSI and 2.0 and 3.0-litre

TDI units, ranging from 150 PS to 272 PS.

Although more powerful than the previous model, CO₂ emissions are reduced by as much as 21 g/km (190 PS 2.0 TDI) with all engines satisfying the Euro 6 emissions standard, and the updated start-stop system 2.0 further reduces fuel consumption by deactivating the engine on the over-run at speeds below 4 mph (below 2 mph for 3.0 TDI tiptronic auto) rather than waiting for it to come to a complete halt.

With the 252 PS / 370 Nm 2.0 TFSI in combination with 7-speed S tronic, the new A4 allroad quattro sprints from 0 to 62 mph in just 6.1 seconds, has a top speed of 152 mph and the NEDC fuel consumption figure is 44.1 mpg combined, corresponding to 147 g/km CO₂.

The 2.0 TDI with 190 PS / 400 Nm and 7-speed S tronic clocks 0-62 mph in just 7.8 seconds, has a top speed of 136 mph and returns up to 57.7 mpg combined, corresponding to 128 g/km CO₂. A future addition to the allroad range will be the 150 PS/320 Nm 2.0 TDI for even greater fuel economy.

Two versions of the 3.0 V6 TDI come with either 218 PS / 400 Nm or 272 PS/600 Nm,

the latter capable of 0-62 mph in just 5.5 seconds, with a governed top speed of 155 mph and an NEDC fuel consumption figure of 53.3 mpg combined, corresponding to 139 g/km CO₂.

There is also a choice of manual 6-speed transmission, the 7-speed S tronic and the 8-speed tiptronic auto. The 2.0 TDI comes with either the manual 'box or the new S tronic while the dual-clutch transmission is standard with the 2.0 TFSI and the 218 PS 3.0 TDI. The 8-speed tiptronic is reserved for the 272 PS 3.0 V6 TDI.

Of course, quattro all-wheel drive is standard on all models; a purely mechanical system, operating with zero delay, it is partnered with the updated wheel-selective torque control system, which is active on any surface.

With the suspension increased in height by 23 mm, the allroad has an additional 34 mm of ground clearance. It is also available for the first time with optional suspension where the damper characteristics adapt to the surface conditions and the driving situation for enhanced handling, greater comfort and significant off-road capability. The driver can choose the default setting of the suspension in Audi drive select and call up the desired handling characteristics at any time.

The new version of Audi drive select comes with an expanded range of functions, with an off-road mode in addition to the familiar comfort, auto, dynamic, efficiency and individual modes. It optimally adjusts the engine and transmission control, the steering, the optional adaptive suspension and all relevant driver and assistance systems for operation in light terrain.

Standard equipment is a set of 17-inch multi-spoke alloy wheels, with optional sizes from 17 to 19 inches in diameter, and it has a space-saver spare wheel and comes with TPMS as standard.

With 338 mm diameter ventilated front brake discs, and an electromechanical parking brake integrated into the rear axle, the Electronic Stabilisation Control (ESC) follows specific characteristics in the Audi drive select modes dynamic and offroad.

A focal point of the cockpit is the new MMI operating concept with rotary control knob including MMI touch, the large MMI display of up to 8.3 inches and the optional all-digital, 12.3-inch Audi virtual cockpit. The new voice control system can recognise input made using everyday language and a head-up display adds to the list of options.

Audi connect brings tailored online services to the car via the fast LTE standard. Services include online roadside assistance,

smartphone calendar integration, remote control functions and status reports via smartphone, plus apps for streaming media. The Audi phone box connects mobile phones to the on-board antenna and charges them inductively according to the Qi standard. The new Audi smartphone interface integrates iOS and Android devices.

For discerning hi-fi fans, the Bang & Olufsen 3D Sound System is available, while the Audi tablet also functions as flexible Rear Seat Entertainment.

Optional driver assistance and safety systems include adaptive cruise control Stop&Go including traffic jam assist, which takes over acceleration and braking and helps with steering at speeds of up to 40 mph. Other new features include predictive efficiency assistant, park assist, cross-traffic assist rear, exit warning, collision avoidance assist, turn assist and the Audi pre-sense systems. 🇧🇪



What Car? Car of the Year

THE AUDI A4 not only topped the billing in its category for Best Compact Executive, but was also voted overall Car of the Year in the recent *What Car?* magazine's annual awards presentation event, staged at the Grosvenor House Hotel in London on Wednesday, January 13.

The magazine's road-test team singled out the mid-range A4 Saloon 3.0 TDI (218 PS) quattro Sport model, writing: 'Audi deserves congratulations for the new A4. It brings new standards of refinement, interior quality and technology to the compact executive class.'

The team went on to applaud the benefits the new A4 reaps from a multitude of cutting edge aerodynamic, aero-acoustic and operating efficiency measures which are brought into especially sharp relief in the V6 versions: 'With fuel economy and CO₂ emissions barely any worse than those of smaller-engined models, the A4 3.0 TDI (218 PS) is the most impressive car we've tried of late. It's only fractionally less efficient than the 2.0 TDI 190 model


(officially and in the real world), and delivers the sort of creamy performance and whisper-quiet driving manners that would shame some luxury limos. Put simply, it feels more like a baby A8 than a 3 Series rival.'

'Choosing this year's winner was anything but easy. The brilliant Skoda Superb came mighty close and Mazda's latest MX-5 also made the final round of voting. However, when we considered the strength of the competition the A4 had to overcome just to top its class, it simply had to win. It brings new standards of refinement, interior quality and technology to the compact executive class.

'We reckon the 3.0 TDI 218 is worth the relatively small premium over the 2.0-litre diesels for its superior refinement, comfort and effortless performance. Whichever version you choose, though, you'll be getting an outstanding car'.

The A4 3.0 TDI quattro 272 S line also took the award in the category for Best Compact Executive over £35,000.

Audi is now the only car manufacturer to have won the coveted *What Car?* Car of the Year trophy more than once in the past 10 years, with the A1 and A3 winning the main prize in previous years.

The impressive showing for Audi, which began with a total of 14 category nominations, also included the Coupé class (£25,000 to £35,000) award for the latest TT 230 Sport while the A3 Cabriolet 1.4 TFSI 150 Sport Nav took Best Convertible (£20,000 to £35,000), the A3 Sportback 2.0 TDI 150 SE Technik was Best Family Car (more than £19,000) and the Q7 3.0 TDI quattro 272 SE was Best Large SUV (more than £40,000). 

'It brings new standards of refinement, interior quality and technology to the compact executive class...'





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Road test

A4 2.0 TDI ultra SE (150 PS) 6-spd manual



Our first full test of the new A4 and even this entry-level 150 PS 2.0 TDI SE provides a very high level of equipment along with top quality construction, good handling, ample performance and excellent fuel economy...

AS WE'VE REPORTED in the news pages of this latest issue, the new A4 has already received the award for Compact Executive Car and overall Car of the Year in the *WhatCar?* awards and it is also shortlisted for the Car of the Year awards, the winner of which will be announced at the Geneva Show on February 29, as well as being shortlisted for the World Car of the Year awards, to be announced at the New York Auto Show in April.

That's not a bad start for a new version of a model, especially one with such a long heritage where it becomes increasingly difficult with each generation to make significant strides forward in terms of design and development.

Outwardly, it might not look significantly different, compared with its predecessor, but – as we explained in the October 2015 issue, following our first drive at the International press launch – this latest incarnation has seen some very worthwhile advances in terms of drivetrain and technology and a brief resumé is in order,

before commencing our specific road test of this 2.0-litre TDI SE Saloon version.

Based on a completely new platform called MLB, with sophisticated five-link fully independent front and rear suspension and electro-mechanical steering, the new A4 is slightly larger (25 mm longer and 16 mm wider, with +12 mm in the wheelbase) but also lighter by as much as 120 kg. With new, more efficient, engines its fuel economy has been increased by up to 21 per cent, thanks in part to improved aerodynamics which also enhance the acoustics,

'The new A4 is slightly larger, but also lighter by as much as 120 kg...'

resulting in low wind noise claimed to be comparable with that of an A8.

The engine range includes longitudinally-mounted four- and V6-cylinder powerplants with outputs from 150 PS to 272 PS, used in conjunction with a redeveloped 6-speed manual gearbox, 7-speed S tronic auto or an 8-speed tiptronic auto transmission, depending on the powertrain option. While most are front-wheel drive, the more powerful models come with the quattro four-wheel-drivetrain.

The petrol range now starts with a 150 PS 1.4 TFSI (replacing the previous 1.8 TFSI), followed by 190 PS 2.0 TFSI with 6-speed manual or 7-speed S tronic, topped by the 252 PS 2.0 TFSI with 7-speed S tronic and quattro drivetrain.

The diesels comprise four-cylinder 2.0 TDI units with either 150 or 190 PS and 6-speed manual or 7-speed S tronic and front-wheel drive, although the 190 PS 2.0 TDI is also available with quattro drive, while the 3.0-litre V6 TDI units



come with 218 PS and 7-speed S tronic, with either front or four-wheel drive, or 272 PS with 8-speed tiptronic auto and quattro drivetrain.

Two versions of the 2.0-litre TDI engine, developing 150 and 190 PS, have been designated as 'ultra' to show that they provide the best fuel economy and it is the 2.0 TDI ultra with 150 PS and 6-speed manual gearbox (as tested here) that is expected to be the most popular, particularly with the company car and fleet market. Claimed to return a combined consumption figure of 74.3 mpg with CO₂ emissions of just 99 g/km, eligible for zero road tax, it can be ordered with both SE and Sport specification.

Close behind is the 190 PS 2.0 TDI ultra with 6-speed manual, claimed to be capable of 72.4 mpg with CO₂ emissions of 102 g/km.

The ultra models are also fitted with low rolling resistance tyres and lowered Sport suspension, with the TDI ultra models having a reduced size fuel and AdBlue tank, although full-sized diesel

and AdBlue tanks are available as no-cost options.

There is a choice of three specifications, entry-level SE followed by the new Sport trim and then the top S line models.

SE models come as standard with 7.5 x 17-inch 10-spoke alloys with 225/50 R17 tyres, xenon headlamps with LED daytime running lamps, Pre Sense City, multicollision brake assist and rear parking sensors.

Inside it has three-zone climate control, cruise control, Audi drive select, Keyless Go, three-spoke leather-rimmed steering wheel (with shift paddles for S tronic) and MMI Radio Plus and Smartphone interface, which supports Apple CarPlay and Android Auto platforms and displays smartphone contact and information such as navigation mapping on the 7-inch colour MMI screen.

The Sport models are distinguished externally by the radiator grille in matt grey with chrome inlays and a matt grey rear diffuser with a single

chrome strip and chrome tailpipes, and they come with exclusive 5-spoke 7.5 x 17-inch alloys with 225/50 R17 tyres.

Inside, it has MMI Navigation, plus an automatic three-month subscription to the many internet-based services and in-car internet browsing options offered by Audi connect. It also has Sports seats in Atrium cloth, a three-spoke sports steering wheel and the 180-watt Audi sound system.

The top-of-the-range S line specification, with distinctively styled front and rear bumpers, side sills and a grey rear diffuser, upgrades to 8J x 18-inch S line alloys with 245/40 R18 tyres. The LED headlights incorporate LED daytime running lights and it has LED rear lights with dynamic rear indicators with a progressive sweeping action.

Sports seats are upholstered in a combination of cloth and leather with S embossing, and it comes with 20 mm lowered S line sports

'Two versions of the 2.0-litre TDI engine, developing 150 and 190 PS, have been designated as 'ultra' to show that they provide the best fuel economy...'





'Its performance is certainly ample for a car that is more likely to be cruising the highways than charging along twisting mountain roads...'

suspension (with the comfort-oriented standard suspension as a no-cost option).

Essentially, there are two standard suspension set-ups, Comfort and Sport, while optional equipment includes Magnetic ride adjustable dampers and a dynamic steering system, which varies its ratio according to speed and steering angle. These are also configured using the Audi Drive Select system, which is a standard feature across the A4 range, providing Comfort, Auto, Dynamic, Efficiency and Individual modes which alter the throttle response, the weight of the steering and the shift points of the automatic transmissions, if specified.

There is also the option of the all-digital Audi virtual cockpit, as previously seen in the TT, R8 and Q7, the standard xenon or LED headlamps can also be replaced with Matrix LED units along with dynamic indicators and other options include a 19-speaker, 755-watt Bang & Olufsen audio system with 3D sound, Audi Entertainment mobile with two detachable touchscreen tablet computers built into the backs of the front seats, the Audi phone box with two separate Bluetooth connections and wireless smartphone charging and MMI Navigation plus with a larger 8.3-inch monitor complemented by the MMI Touch fingertip touchpad built into the rotary controller.

Numerous optional driver assistance systems include the Predictive Efficiency Assist, which uses navigation data to advise the driver when it might be possible to reduce speed in the interests of fuel economy, the Stop&Go adaptive cruise control system which provides almost autonomous driving in heavy low-speed traffic, even taking into account road markings and the traffic ahead, Cross Traffic Assistant which aids reversing from a parking space, Exit Warning

which monitors the rear and side of the car before the occupants open the doors, and Turn Assist which monitors oncoming traffic, and can bring the car to a halt if a turn manoeuvre is started in the face of oncoming traffic.

That's quite an array of standard and special equipment and we have to reflect that the mid-range A4 can now be ordered and specified with the sort of equipment, trim and technology that would have been the envy of the most expensive luxury super-saloons of just a decade or so ago.

But back to our relatively modest SE specification test car, with its 2.0-litre (1968 cc) four-cylinder TDI diesel engine developing an equally modest 150 PS from 3250 to 4200 rpm and 320 Nm (236 lb.ft) torque between 1750 and 3000 rpm.

While providing ample performance for normal road use, those are the sort of power and torque figures that we'd have seen on a 2.0-litre TDI engine as long ago as the mid-Noughties. The big difference, though, is that this latest engine

provides considerably improved fuel efficiency and low emissions.

Quite apart from its separate cooling circuits for fast warm-up and accurate thermal control at all speeds, twin balancing shafts for smooth running, a cylinder pressure sensor, reduced internal friction and high-pressure (2000 bar/ 29,000 psi!) common-rail injection, this 2.0 TDI engine comes as standard with high and low-pressure exhaust gas recirculation (EGR) and multi-stage exhaust gas after-treatment including a selective catalytic reduction (SCR) system that injects AdBlue into the exhaust tract to significantly reduce NOx emissions in particular.

The overall result is an engine that not only produces decent performance but also exceptional fuel economy and low emissions, both so very important in the modern world.

First the performance, because good fuel economy is only really beneficial if the car still remains pleasurable to drive and capable of



'The 2.0 TDI engine not only produces decent performance but also exceptional fuel economy and low emissions...'



keeping up with the cut and thrust of modern traffic conditions rather than being condemned to languish in the 'slow lanes'. Well, the A4 2.0 TDI 150 is no ball of fire, but its performance is certainly ample for a car that is more likely to be cruising the highways than charging along twisting mountain roads.

Audi claims a top speed of 130 mph, which is plenty enough even for the autobahns, and a 0-62 mph time of 8.9 seconds with the 6-speed manual (S tronic should be slightly faster).

Our own full-bore performance testing improved slightly on this, with a 0-60 mph time of 8.7 seconds, and with 70 reached in 11.7 and 80 mph in 15.6 – not exactly searing acceleration, but competent enough to reach motorway speeds on most access slip roads and join the traffic flow without serious disadvantage. It's also torquey enough to carry a high gear at moderate speeds and to haul the extra weight of four passengers and luggage if needs be, without feeling at all strained.

Our only reservation was a slightly bald spot with torque delivery at the bottom end; try to trickle into a roundabout at low rpm in second gear, or make an upslope start with not quite enough accelerator and you can suffer an unexpected soft stall, although nowhere near as violent as used to be the case with the old TDI PD engines. The stop-start system will readily re-start the engine for you, so refrain from bump-starting it and stay away from the ignition button or you'll confuse matters even further, but it's a trait that you'll need to be aware of and safeguard against.

On the other hand, it also means that you're unlikely to suffer that sort of snatching wheelspin and sudden traction control intervention that high-torque engines in conjunction with front-wheel drive can be prone to; even in our full-bore acceleration tests, with ECS off, the wheelspin proved to be quite manageable.

In all other respects, though, it's perfectly smooth and tractable and the manual gearshift on this test car was as slick as it needs to be, to

make a fairly seamless progress through the ratios and up into sixth by the time you reach 45 mph, for economical driving.

Speaking of which, our standard economy driving test returned a very healthy 72.4 mpg and the overall average was just over 60 mpg, well up on the 56.5 mpg we'd achieved with a 163 PS 2.0 TDI SE in December 2014 and substantially better than the 43.4 mpg with a Multitronic 150 PS 2.0 TDI in July 2014 or the 51.3 mpg with a 136 PS 3.0 TDI in April 2010.

Bear in mind, too, that most of the test period for this A4 2.0 TDI ultra was during a cold wet spell in early January and the car was running on the Dunlop Winter tyre package (+£1,596) rather than the usual low rolling resistance brand. It's difficult to quantify the exact difference that these factors would make, but we'd hazard a guess that it could return at least another 4 or 5 mpg in warm, dry weather and with the proper tyres, maybe even more when fully loosened up, as our test car had only 4,000 miles on the clock.



'Our standard economy driving test returned a very healthy 72.4 mpg. The overall average was just over 60...'

‘The larger fuel capacity will see the range before refilling extended by a good 180 miles or so...’



Also worth noting is that the test car was fitted with the option of the larger 54-litre fuel tank rather than the usual 40-litre tank, and that this was accompanied by the larger 24-litre AdBlue tank, to feed the SCR system. It's difficult to calculate the effect of the extra weight of a full tank on overall mpg, but clearly the larger fuel capacity will see the range before refilling extended by a good 180 miles or so. It would be interesting to know how many buyers will specify the larger fuel tank, especially as it is a no-cost option.

We don't yet have any firsthand long-term experience with rates of usage or replenishing the AdBlue and we'll be very interested to hear from anyone who does, but the clear advice is never to let it run out, or the engine will not restart and could leave you stranded. By all accounts there are plenty of warnings, though, and AdBlue is now readily available at all fuel stations.

So, decent performance and excellent fuel economy, what else is there to consider – handling? Well, as we said earlier, this isn't

the sort of car that you'll be wheeling around like a getaway driver and, unless you're very silly, it's not so fast that you'll inadvertently find yourself diving into a corner or bend with too much speed to lose.

Interesting, though, is that the TDI ultra is fitted with the Sport suspension, lowered by 20 mm, instead of the Comfort Dynamic set-up that would normally be the case on an A4 SE. This has the advantage not only of improving the aerodynamics at higher speeds, but also the subtle ability to carry speed more effectively through bends, maintaining a better average speed rather than check-braking and then accelerating again.

It's not stiff or jarring, though, so ride comfort doesn't suffer beyond a slightly greater awareness of short sharp irregularities like motorway joints. Indeed, it could actually be firmer still, for high-performance driving, but that's not really what the TDI ultra is all about, and its handling at higher speeds is confident enough.

Typical of the multi-link front suspension, the steering action has that slightly 'square' response that hooks into the corner, providing a quick turn-in that needs to be adjusted to, but in all other respects it gives good feel, weight and feedback.

Dynamic steering is available as an option at £950, and the TDI ultra can also be specified with the Adaptive Sport suspension with damping control, at £900, but it all depends on whether your reasons for buying the TDI ultra are to save fuel, or to save money, because both those sums could buy an awful lot of cruising mileage at an average 60 mpg.

We've already covered the basics of the SE specification, and so extensive now is the standard array of detail trim and equipment that we'll refer you to Audi's brochure for the full rundown, rather than recite it all here. Instead, a few observations on the sort of details that our drivers commented on during the road test.





The provision of a spacesaver spare wheel is reassuring, but there's no room beneath the boot floor for a full-sized rim and tyre, because the spacesaver sits on top of the boot-mounted battery. You'd have to accommodate the punctured wheel and tyre in the boot space.

Speaking of the boot, the lid is opened by electric release from the key fob, which is very convenient when returning to the car with your hands full, but the position of the boot release in the middle of the fob means that you can all too easily trigger it by accident. Take care not to wander off to do your shopping and come back to find the boot already wide open!

Another of our drivers made some interesting observations about the door mirrors. Audi went to great trouble to reinforce the door panels and mount the mirrors on the doors, shaping them for improved aerodynamics and reduced wind noise, but the shape and profile reduces the area of mirror glass and in very wet weather the water that now streams up the inside of the mirror,

and up the side window glass, reduces the lateral visibility.

In wet weather the rear screen will also accumulate water, although Audi has long been reluctant to spoil the appearance of its saloons and coupes by adding a common-sense rear wiper. A wise addition to the driver's door pocket will be a squeegee blade or microfibre cloth to wipe the rear screen before setting off, although the heated rear window element should then keep it relatively clear.

Other minor concerns were that the stop-start button is a long reach forwards on the centre console, although with hindsight that may well have been a deliberate placement to avoid any possibility of interference by the passenger, and for some inexplicable reason the Drive Select control, mounted at far left, now has two buttons, either side, to toggle up and down, rather than just the one switch.

Someone else observed that, unlike most VWs these days, there are no rear seat releases in the

boot space; you still have to open the rear side doors to use the latches on top of the seat backs. As usual, the rear seat backs don't fold perfectly flat, but if you plan on carrying large loads on a regular basis then you should really be looking at the new A4 Avant, at a premium of £1400.

All things considered, though, the new A4 not only presents a significant advance over its predecessor in terms of quality and equipment but, bearing in mind that this 150 PS 2.0 TDI SE is essentially the entry-level model here in the UK market, it provides a very high specification, along with ample performance, good handling and driving dynamics and exceptional fuel economy.

At significantly less than £30,000 for this SE model, the current A4 supplies the sort of quality, equipment and refinement that would have been expected of a high-class executive super-saloon of only a decade or so ago. We rather suspect that a few more Car of the Year awards will be forthcoming... 🇬🇧



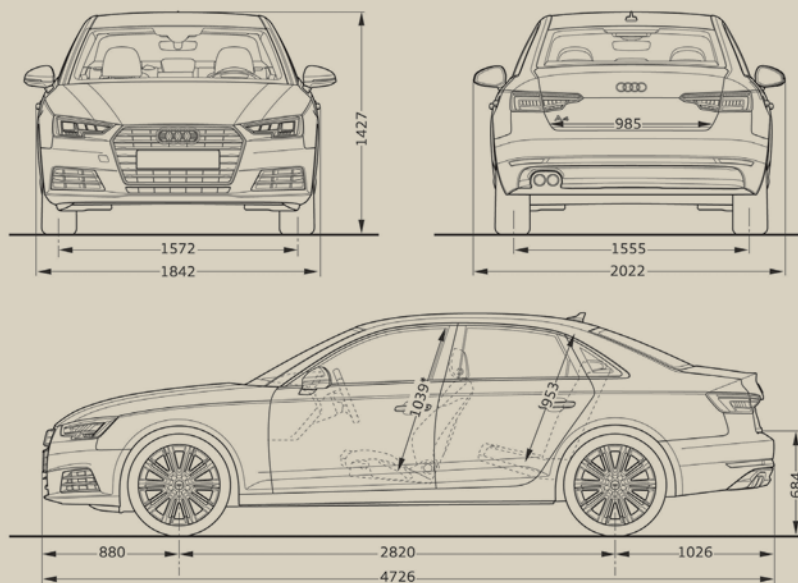
Price comparison

A4 Saloon 2.0 TDI Ultra SE (150 PS) 6-speed manual	£29,150
A4 Saloon 2.0 TDI Ultra Sport (150 PS) 6-speed manual	£30,100
A4 Avant 2.0 TDI Ultra SE (150 PS) 6-speed manual	£30,550
A4 Saloon 2.0 TDI Ultra SE (150 PS) 7-speed S tronic	£30,680
A4 Avant 2.0 TDI Ultra Sport (150 PS) 6-speed manual	£31,500
A4 Saloon 2.0 TDI Ultra S line (150 PS) 6-speed manual	£31,600
A4 Saloon 2.0 TDI Ultra Sport (150 PS) 7-speed S tronic	£31,630
A4 Avant 2.0 TDI Ultra SE (150 PS) 7-speed S tronic	£32,080
A4 Avant 2.0 TDI Ultra S line (150 PS) 6-speed manual	£33,000
A4 Avant 2.0 TDI Ultra Sport (150 PS) 7-speed S tronic	£33,030
A4 Saloon 2.0 TDI Ultra S line (150 PS) 7-speed S tronic	£33,130
A4 Avant 2.0 TDI Ultra S line (150 PS) 7-speed S tronic	£34,530

Facts and figures: A4 Saloon 2.0 TDI ultra (150 PS) 6-spd manual



DIMENSIONS & WEIGHTS



Turning circle	38.0 ft, 11.6 m
Unladen weight	3153 lb, 1430 kg
Total permitted weight	4475 lb, 2030 kg
Permitted trailer load; w brakes	3086/3527* lb, 1400/1600* kg
Permitted trailer load; w/out brakes	1653 lb, 750 kg
Luggage capacity (seats up/folded)	480/965 litres
Wheels and tyres	7.5 x 17 alloys 225/50 R17

*12%/8% gradient



ENGINE / FUEL ECONOMY / ACCELERATION

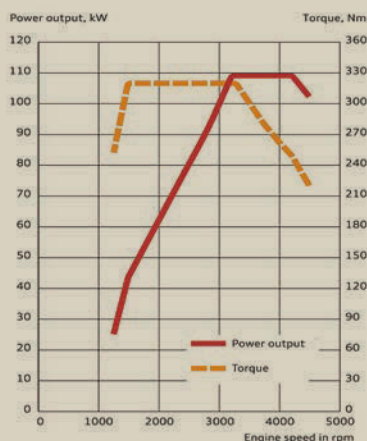
ENGINE SPECIFICATION

Displacement	1968 cc
Configuration	In-line
Cylinders	4
Bore and stroke	81.0 x 95.5 mm
Power output	150 PS (110 kW) @ 3250-4200 rpm
Maximum torque	236 lb.ft. (320 Nm) @ 1500-3250 rpm
Compression ratio	16.2:1
Valves per cylinder	2 inlet, 2 exhaust

FUEL CONSUMPTION

Overall test value	60.2 mpg, 4.7 l/100km
Economical driving	72.4 mpg, 3.9 l/100km
Urban cycle	62.8 mpg, 4.5 l/100km
Extra urban cycle	83.1 mpg, 3.4 l/100km
Total	74.3 mpg, 3.8 l/100km
Fuel required	Diesel
Fuel tank capacity	8.8/12 gallons, 40/54* litres
CO ₂ emission	99 g/km

* 54 optional as tested (see text)



ACCELERATION FIGURES

Maximum speed	130 mph, 208 kph
0-50 mph	6.4 sec
0-60 mph	8.7 sec
0-70 mph	11.7 sec
0-80 mph	15.6 sec
30-50 mph (3rd gear)	3.8 sec
30-50 mph (4th gear)	6.6 sec
50-70 mph (3rd gear)	5.0 sec
50-70 mph (4th gear)	5.8 sec
50-70 mph (5th gear)	8.3 sec
50-70 mph (6th gear)	10.9 sec
Road speed/1000 rpm in top gear	36.8 mph, 59.3 kph

Acceleration figures recorded using VI Monitor.
For more information visit the website at:
www.vi-performance.com

PERFORMANCE COMPARISONS

	A4 Saloon 2.0 TDI ultra SE 6-speed manual	A4 Saloon 2.0 TDI Technik ultra 6-speed manual	A4 Saloon 2.0 TDIe 6-speed manual	A4 Saloon 2.0 TDI Multitronic	VW Passat GT 2.0 TDI SCR 6-speed DSG
Displacement, cc	1968	1968	1968	1968	1968
Power output, PS/kW	150/110	163/121	136/101	150/110	190/140
@ rpm	3250-4200	3000-4200	4200	4200	3500/4000
Maximum torque, lb.ft./Nm	236/320	296/400	237/320	236/320	295/400
@ rpm	1500-3250	1750/2750	1750-2500	1750-2500	1750-3000
Maximum speed, mph/kph	130/208	140/224	134/214	130/208	146/235
0-50 mph, sec	6.4	5.8	7.4	6.4	6.5
0-60 mph, sec	8.7	8.1	9.9	9.0	8.4
0-70 mph, sec	11.7	10.6	12.8	12.3	10.9
0-80 mph, sec	15.6	13.7	17.0	16.4	13.9
30-50 mph (third gear), sec	3.8	4.0	4.7	3.3	3.4
30-50 mph (fourth gear), sec	6.6	6.4	6.3	-	-
50-70 mph (third gear), sec	5.0	4.4	4.9	5.9	4.5
50-70 mph (fourth gear), sec	5.8	5.5	6.2	-	-
50-70 mph (fifth gear), sec	8.3	7.2	8.1	-	-
50-70 mph (sixth gear), sec	10.9	10.2	10.3	-	-
Overall consumption, mpg / l/100km	60.2/4.7	56.5/5.1	51.3/5.5	43.4/6.5	48.9/5.7
Unladen weight, lb/kg	3153/1430	3396/1540	3252/1475	3341/1515	3415/1549
Power/weight PS/ton, PS/tonne	106/105	108/106	94/92	101/99	124/122
Test publication date	Feb '16	Dec '14	Apr '10	July '14	Mar '15

'Our performance testing improved slightly on Audi's figures, with 0-60 in 8.7 seconds, with 70 reached in 11.7 and 80 in 15.6...'

i To read any of the other tests mentioned in the comparison chart, back issues can be ordered online, securely, from our website:
www.audidrivermag.co.uk

VW Driver



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Meet Bobby and Jack...



*Connectivity is a game-changer for the car industry, with Audi deciding quite early on to become intensively involved with digitalisation to make sure it doesn't let go of the driver's seat in what it recognises as the car manufacturer's technological leadership... **Susanne Roeder** reports...*

FANCY HANDING your car over to a four year-old? Or how about placing your infant inside your car and with the wave of your hand or a spoken word your two prized possessions depart on a blissful journey to Granny and Grandpa's place, no chauffeur, no fairy dust required? Does this sound like a Sci-Fi fantasy or something just too distant for our technological scopes to envisage?

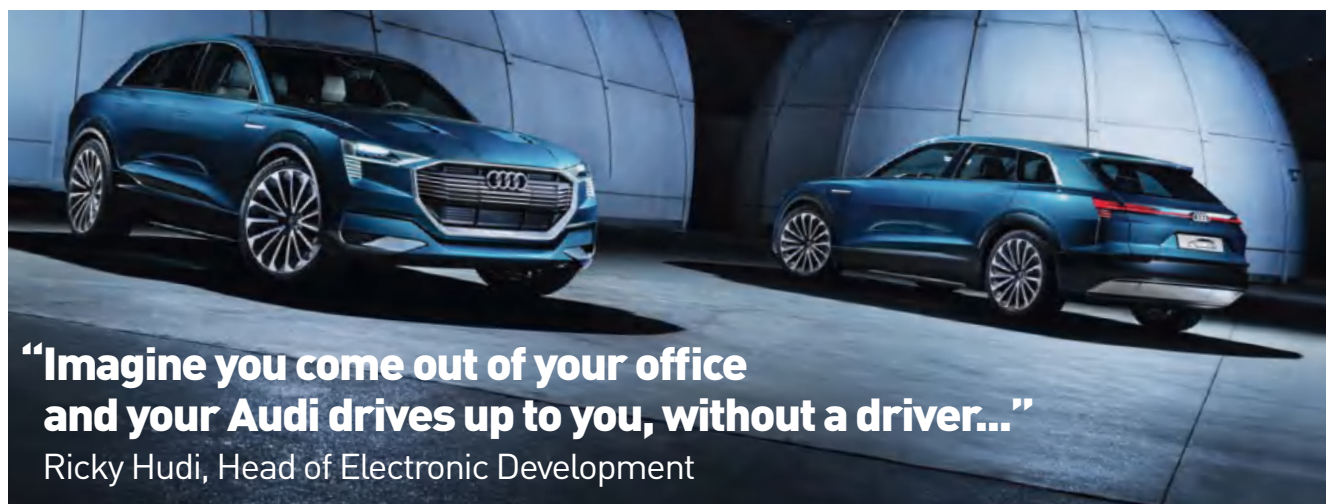
While scenarios like these, with a self-driving car, may still sound like a George Jetson fantasy and not be to everyone's liking, when it comes to steering a car, it's a change closer than we comfortably expect. Enter Bobby and Jack, an Audi RS 7 and an Audi A7, who have repeatedly and successfully demonstrated autonomous skills in long-distance tests over the past two years. On the racetrack or in real traffic,

in megacities and with up to 80 mph on the motorway, these two wonders of technology have flawlessly piloted and managed all driving functions themselves. Kudos to you boys.

But are the boys taking the fun out of the word drive? Since the invention of the car 130 years ago, technology and its clever assistance systems have made the task of driving a more enjoyable and less tiresome task. While the technological revolution may bestow the future with cars that may seem like proverbial child's play to drive, the overall traffic situation is set to worsen, making the task of driving an enervating and complex place to be. Deprived of fun and with our life meters expiring in a traffic jam of depressing boredom, we may ask where is the reprieve from this dismal horizon?

It starts with a word, connectivity. Thanks to their two boys, Bobby and Jack, Audi is convinced that offering the driver the option between an 'I'll drive and you drive' environment, will increase the overall driving pleasure and put the fun back on track. The idea is to make the car take care of most of the tedious and annoying traffic situations, leaving the 'juicy bits' of active driving to the person behind the wheel. 'Over the years to come, we will master ever higher speeds and an increasing number of scenarios with piloted driving. Audi will continue to maintain its position at the forefront of this technology,' is CEO Rupert Stadler's mantra for Audi.

While this technology may come as a shocking leap for some of us, Audi has been at the very forefront of this technological



**“Imagine you come out of your office
and your Audi drives up to you, without a driver...”**

Ricky Hudi, Head of Electronic Development

evolution for the past decade. At the Consumer Electronics Show in Las Vegas, one of the car industry’s most important international exhibitions for showing off technology, Audi has been a constant, providing us with snippets of high-tech wonder and taking centre stage of where we are today. In 2010, Audi explained how the partnership with Google and Google Earth would transform automotive mapping. Two years later, Audi was first to demonstrate piloted driving and parking at the CES, two years ahead of everybody else.

This year, Audi presented its e-tron quattro concept study, a sporty, fully electric SUV displaying all piloted driving functions, including piloted driving in congested traffic and piloted parking. Although the car can perform these functions all on its own, legislation still requires the driver to be sitting behind the wheel, always ready to grasp the wheel and resume driving, hence the name ‘piloted driving’.

Paving the way for piloted driving

Advanced telematics allow cars, like the concept e-tron quattro, to be constantly connected to everything – other vehicles, buildings and infrastructure, as well as us – the people and our electronic devices. With the acquisition of the HERE database, BMW and Daimler and Audi can draw from a navigation map that is precise to the centimetre, constantly renewing itself thanks to swarm intelligence. Additional context-awareness is established through information from outside the car, i.e. data delivered by other vehicles, cities and the internet. Using the live data from HERE, which Audi calls its location cloud, the car forecasts exactly what to expect on its route and provides us with that dose of traffic jam mercy.

Let’s get back to Mr. Jetson. Ricky Hudi, Head of Electronic Development at Audi, thinks that you may see him driving down your street in the in e-tron quattro sooner than you think. ‘Imagine you come out of your office and your Audi drives up to you, without a driver,’ he suggests and goes on to paint a vivid picture: ‘You can leave work a bit earlier today, because you’ll conduct the last video conference of the day from within the car. Afterwards, you lean back and flick through printed matter you need to know about. While doing so, your Audi guides you serenely past traffic congestions and delivers you home quickly and unstressed.’

The obvious car to offer such avant-garde amenities is the A8 whose next generation will be launched next year. This luxury car, although not yet having the aforementioned legal licence to drive autonomously, will be the first Audi in series production with piloted driving, i.e. with the driver always on ‘standby’.



If required, the new A8 will be able to drive piloted speeds of up to 60 kph (37 mph), thus relieving drivers from often stressful stop-and-go and convoy traffic. And for Mrs. Jetson, the next car with piloted functions will be an electric SUV based on the e-tron quattro concept car.





From virtual cockpit to virtual dashboard

There is no doubt about it, as digitalisation and the tide of virtual everything showers us with change in everyday life, it's in the midst of redefining the properties of the car as we know it today. The e-tron quattro concept car gives a clear indication and spells out the interior DNA of the next generation of Audi models and the impacts it will have on the driver's habitat. As far as future technologies are concerned, the emphasis is on a command centre operating evermore precisely and at lightning speed. Using OLED technology throughout, the Audi Virtual Cockpit introduced in the new Audi TT less than two years ago, will be further enhanced, accompanied by two more displays in the centre console and turning the whole set-up into what Audi likes to call its Audi Virtual Dashboard, basically taking care of any information relevant to driving.

As Hudi puts it: 'We are presenting an entirely new world of experience to our customers. Our goal is to create a seamless

connected experience.' A prominent outcome will be an ever-more personalised car, as the entire system will get to know its user with his or her habits and preferences, even their health data. 'On the basis of data, cloud technology and new business models as major drivers of innovation, we will create an eco-system around our core product,' Hudi tells us.

So, what exactly is new in the concept car? Each of the three displays offers different services. The Audi virtual cockpit now has a curved screen, using Active Matrix Organic Light Emitting technology (AMOLED), which in conjunction with the multifunction steering wheel presents all key information and offers tremendous freedom in shaping the display according to one's preferences.

But wait, there's more, the centre console demonstrates further developed haptic

feedback to take care of all aspects of infotainment, navigation, air-conditioning and other services. There will be two touchscreens for this, geared towards satisfying our essential creature comforts while driving, and as Audi is quick to point out, this so-called 'Audi MMI touch response can be operated with minimum distraction.' No more buttons. Instead, everything in future is available at the touch of a screen.

The upper display mainly provides classic infotainment content such as navigation and media and other configurable favourites, but get this – it will even recognize the driver's handwriting. With its intelligent messages and personalised content, the fully digital implementation of the Audi operating concept becomes the driver's out-of-office personal assistant. →

“We are presenting an entirely new world of experience to our customers. Our goal is to create a seamless connected experience...”



You can read more about the e-tron quattro concept in the October 2015 issue.



Outperforming IT industries

So, is it Bobby and Jack Microsoft or Bobby and Jack Audi? While there has been an emerging fear in the automotive industry that IT giants are taking over the driver's seat when it comes to manufacturing future cars. Audi sees the relationship between industries being crucial. These cars will undoubtedly be ever more connected in order to come to grips with traffic, carve out precious time for the passengers by taking over command and circumventing congestions, plus reduce the rate of accidents by 90 per cent.

However, much more remains to be said for future mobility apart from it being

deeply rooted in the internet and the cloud. 130 years of expertise in designing and manufacturing cars cannot be adopted just like that. Audi know their clients very well. Over the past 25 years they have reinvigorated the brand into the luxury icon we know today. From experience, it takes time to establish a brand that is esteemed by a devoted clientele, I don't think anyone is going to get too excited about a car called a Microsoft 323!

Let me therefore close with Audi CEO Rupert Stadler who, when asked about the power struggle between mobile phone companies and car manufacturers, waived concerns about the automobile

losing ground. Quite the contrary, Stadler emphasises the car's pre-eminence in the networked world, based on its superior 'intelligence': 'It is equipped with everything it needs to calculate a complete model of its surroundings wherever it is and in real time. There is no computer that can do that, never mind a smartphone. Only a piloted car has radar systems, video cameras for 3D reconstruction, ultra-sound sensors and a laser scanner delivering highly precise data on objects in front of the vehicle.'

Just as importantly, in this connected world, Stadler sees the car manufacturers as the ones who can and will guarantee their customers' privacy. The logic is simple: Rather than ending up on the servers of international IT companies, it's the sensors in the car that necessitate the intelligence for assistance systems and piloted driving to be in the car, too. Consequently, in spite of swarm intelligence increasing through there being evermore connected fish in the sea of tomorrow's traffic, authority over personal data will remain the property of Mr. Jetson.

Bobby and Jack are very good lads, doing well and going places. While all this technology does enlighten and raise our awareness about the prospects of tomorrow's Audi today, the lads are still a long way off from driving your infant to the grandparents – there will always have to be a grown-up with a driving licence inside the vehicle, ready to take over at any time. 🇩🇪



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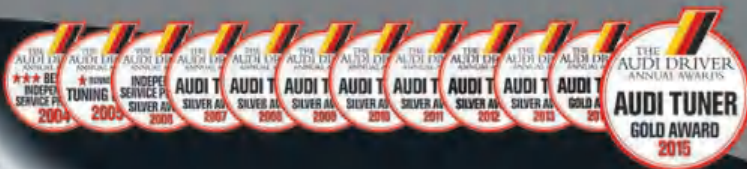
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One for the road

Mark Travers gives us the background to his purchase of an S1, and tells us about some of the modifications he has made to it...

AS A LONG-TIME Audi enthusiast and previous A1 owner, I was very interested in test-driving the S1 when it came to the UK market. I always enjoyed driving my A1 Competition line, but with just the 122 PS 1.4 TFSI engine the Competition line didn't have the performance to match its looks. As I often go on long runs to both the Scottish Highlands and the French Pyrenees for hiking holidays, usually with the car loaded with luggage, I found the A1 1.4 somewhat lacking in power and the rear seat short of headroom for passengers as it was the 3-door version with the lower roof line.

So, in October 2013, I took the decision to buy something much bigger that could carry passengers and luggage, with room to spare, and I traded in the A1 for an S4 Avant, which arrived in March 2014. However, after several months of driving it, including its first long drive to Le Mans, I started to dislike the S4 as it felt cumbersome and was tiring to drive as it wouldn't hold a straight line without constant steering correction. Although it is potentially a performance car, its size clearly hindered fast progress on twisting roads.



The S4 was investigated by the Audi dealership, which said there was nothing wrong with it, and claimed that they are all a bit like that with the 19-inch wheels: 'They drive better on the 18-inch wheels' I was told!

I also own a 2003 TT Roadster, which was vastly superior to drive than the S4, much more stable on motorways and it handled better on tight twisting roads due to its smaller dimensions. In fact I had a trip to Lake Garda planned during 2014 and opted



to take the 12-year-old TT over the new S4, as I knew it was going to be more relaxing to drive on the long run. I have to admit that I made the correct choice, especially as I planned to drive over the Stelvio Pass, where the TT was a joy to drive and the S4 would have been slow and painful due to its size on this winding road!

It was after returning home from the trip to Italy that I finally realised that the S4 was a mistake and – I am sorry to say – for me it was the worst Audi I have ever

'I had a trip to Lake Garda planned and opted to take the TT over the S4, as I knew it was going to be more relaxing to drive on the long run...'



owned. In fact, if this had been my first experience of an Audi I most likely would have never purchased another one again!

I did, however, like the V6 engine and the S-tronic gearbox in the S4 and, of course, it was quiet and comfortable in terms of ride quality. But for me the combination of the car needing constant steering input and the dull feeling to the steering had turned me against it to the point where I stopped driving it as I disliked it so much!

So, I had made my decision to part with the S4, but it was just a question of what would replace it. A trip to my local Audi dealership, Sheffield Audi, and a look around the showroom was in order; they had a purple S1 Sportback in the showroom which attracted my attention, having enjoyed owning the A1 previously. I have to say that just sitting behind the wheel in the showroom gave me the feeling of being at home again!

It might sound strange to say that the car just fitted me, but this is how I felt; everything was in the right place and I felt completely at one with the car, all I needed to do was test drive it. However, after the S4 experience a one-hour test drive wasn't going to cut it this time. I wanted the car for the whole day so that I could include lots of motorway driving and cross-country driving, to ensure the car was exactly what I wanted in terms of the driving experience.

The dealership understood this and actually put the showroom car on their demonstrator fleet and a few days later I had it on loan for the day, and I have to say that I completely enjoyed the experience. It was vastly superior to the S4 for motorway stability, I was able to relax, with the steering not requiring constant driver input to maintain a straight line and the feel from the steering made the S4 seem like a very old lumbering car! The ride quality was perfectly acceptable for the type of car and I was not missing the S-tronic gearbox, as the manual transmission in the S1 is a joy to change gear and suits the character of the car.

'Sheffield Audi had a purple S1 Sportback which attracted my attention, having enjoyed owning the A1 previously. I have to say that just sitting behind the wheel gave me the feeling of being at home again!'

There were, however, two significant downsides to the S1, one of which is the very small boot that I decided I could overcome with a roof box when I go on holiday, but the other was a problem that was pointed out in the road-test report by *Audi Driver*. The S1 did have a significant amount of road noise that wasn't present in other A1 models, and I this really spoiled what was otherwise a superb and rewarding car to drive. Of course, turning up the stereo drowns out the road noise, but in my mind the noise is still there and spoiling the car!

In theory the decision to change should have been an easy one as I'd really only found the one thing with the S1 that I didn't like and there were several things with the S4 that I didn't like, but that road noise was so bad it really was spoiling what was otherwise a great car.

After I returned the S1 to the dealership and drove home in the S4, though, I knew within a few minutes of driving the S4 again that I wanted to order an S1 and put up with the road noise, such was the difference in how the two cars drove. So, the next day I ordered up my new S1, with around £7,000-worth of extras! I do like my toys on my cars!

The S1 arrived in April 2015 and I was able to take delivery just in time for my 48th birthday – quite a nice birthday present! I was also in for another surprise

MY S1 WAS supplied by Sheffield Audi and has both the quattro interior and exterior styling packs fitted, with the optional black roof, and the 18-inch rims that come as part of the quattro exterior pack.

Inside, I have the Comfort pack with cruise control and reversing sensors, Audi music interface, and the SD Card satnav, chrome decorative elements, heated seats which are the super sport seats which come with the quattro interior styling pack, storage pack and the centre armrest which I hardly use but it is useful for more storage. Oh, and the Bose sound system too!

I have also purchased a set of 17-inch Winter wheels and tyres from Audi which have Dunlop WinterSport 3D tyres fitted, and these are on the car at the moment.



when I drove the car, as the road noise present in the test car was absent in this one!

Audi has clearly done something to address the problem, but whatever they have done to reduce the road noise had also reduced the exhaust note compared with the test car that I drove. I soon knew that at some point I would be addressing this with an aftermarket exhaust system, as the exhaust note for me always adds to the driving pleasure of the car.

As I run my cars in properly, by not exceeding 3000 rpm for the first 1000 miles, the exhaust system was something I could research and upgrade later, and my first improvement was a Revo induction kit that comprises a foam panel air filter element and a larger bore silicone turbo intake, which Revo claim gives better and smoother air flow for a power increase of 8 bhp and +10 Nm torque on a standard engine. I have also fitted the APR turbo silencer delete kit.

I like the idea of the exhaust valve in the factory-fitted Audi system, which gives more of an exhaust note when switched to the dynamic mode and at my age I don't want a really loud exhaust all the time, especially as I go on long runs where it is nice to have the car running quietly when cruising at 130 kph on the French autoroute. My ideal set-up would be to have the same exhaust note in the auto mode on the drive select as the car currently has in the

dynamic mode, and then more of a note in the dynamic mode...

There are several aftermarket exhaust systems available for the S1 already, some of which retain the factory exhaust valve in the rear silencer, but they only offer small power gains and clearly look different from the factory tailpipes which I like the appearance of, and it always seems a shame to remove a new exhaust system which is in good condition.

A little more research revealed that a replacement downpipe with 200-cell Sports catalytic converter was available from BCS Automotive and this replaces the factory-fitted downpipe and cat. It is

‘There are several aftermarket exhaust systems available for the S1 already, some of which retain the factory exhaust valve, but they only offer small power gains and look different from the factory tailpipes...’

a stainless-steel pipe which is also titanium thermal-wrapped to reduce underbonnet temperatures and the cat is situated under the car again to remove heat from the engine bay. The downpipe is claimed to provide performance gains of up to 20 bhp in conjunction with other modifications but probably around 10 bhp on a standard car. There is no need for a re-map as the car runs fine, with no check engine warning lights.

The guys at BCS were very helpful when speaking to them, prior to making the decision to have the downpipe fitted and they put me in contact with the owner of the car that had been used for the development of the downpipe, who was also very helpful. After talking over the improvements, I opted to have the downpipe that is made to order, but it only took one week from placing the order to the day of fitting.

As a fairly competent home mechanic, I was going to fit the downpipe myself, but after talking with Nigel at BCS I decided to let them fit it for me as the job involves dropping down the subframe and steering rack to remove the factory downpipe! BCS carried out this work for just £100 on top of the £715 cost of the downpipe, which I was more than happy with.

Dave at BCS took me through the installation step-by-step, beginning with locking the steering wheel in a straight line, removing the keys from the car and



undoing the steering column bolt near the foot pedals to remove the steering column from the rack. The next stage is to undo the clamp retaining the downpipe to the turbo, then raise the car up on the ramp and remove the engine tray to access the bolts for the subframe, which requires marking to ensure it is bolted back in the same place so as not affect the steering geometry.

With the subframe and steering rack lowered down, the clamp bolts on the rear of the downpipe can be undone and the sleeve retaining the downpipe to the rest of the exhaust system can be slid back out of place, allowing the downpipe to be removed from the car. Even then, there is very little room to remove the factory-fitted downpipe and I was glad I hadn't attempted this at home as you really do need the car up on the ramp with the suspension at full drop to remove the original downpipe.

Side-by-side with the replacement downpipe and 200-cell sports cat, it is very easy to see just how restrictive the original Audi downpipe and cats actually are, with compressions in the pipework that seem as though they reduce the bore size by 50 per cent and the aggressive, almost 90-degree bend straight out of the turbo. It was easy to see how the BCS downpipe was going to flow much better.

After reassembly, the car was road-tested to ensure that the install was as expected and immediately the exhaust note outside the car was more purposeful and I would learn the benefits on the almost 100-mile

drive home. I have to say that the conversion was all that I could have hoped for, doing exactly as I wanted.

In efficiency mode the car cruises on the motorway in silence, with more of an exhaust note in the auto mode when full throttle is used – I would reckon it was about the same as it used to sound in the dynamic mode. But when switched to the dynamic mode the car has a lovely purposeful exhaust note, with no drone in the car, and it definitely pulls much stronger as a result of the improved gas flow.

With the benefits of retaining the factory-fitted exhaust system and keeping the car looking standard, but with a little more performance and the vastly improved exhaust note I can't help but feel that this is how the S1 should have left Audi!

From my personal experience, I would say this should be at the top of any shopping list for aftermarket parts for all S1 owners, as it has vastly improved the driving experience of my car and I can't say enough good things about BCS Automotive, a company which offered a professional service and are very passionate about the high-quality products they provide to their customers. Indeed, the business owner – Nigel – owns a Sepang blue TT RS!

The company also goes under the name Powervalve Ltd., because they also make full exhaust systems with a boost pressure valve system in the exhaust, much the same as the Audi exhaust valves except theirs operates on full boost and actually bypasses

a silencer which gives a much louder exhaust on full throttle but with factory noise levels when cruising on a motorway. Obviously I didn't go for the full system which has this valve, just the downpipe.

I was tempted to go down the route of having the MTM M-Cantronic ECU conversion fitted to the S1, but the BCS downpipe has made such a difference in power that I don't think I will bother with the MTM now. I will probably just have the larger Forge Motorsport intercooler which is claimed to deliver another 10 bhp, as I don't want to push the car too hard with power increases! Forge says the intercooler which Audi has fitted to the S1 is significantly smaller than that on a Golf GTI with the same engine, and the tests on the Forge intercooler showed 30 per cent more air density than the original-fit intercooler. As I often go to the south of France in the summer, with temperatures of 35°C I think an upgraded intercooler is a good option for me! 🇬🇧

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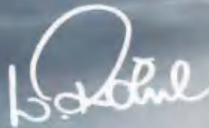
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Audis at ASI

Our annual visit to Autosport International always finds plenty of interest for Audi enthusiasts... Neil Birkitt reports.

THIS YEAR'S Autosport International at Birmingham's NEC attracted another huge crowd of visitors over the weekend of January 16-17. Indeed, we're told that Saturday saw all tickets sold out by the early afternoon and all Sunday's tickets gone before lunchtime!

There were three major debuts for 2016, with Ginetta unveiling its G57 prototype, a 580bhp LS3-engined racer set for Le Mans, as well as the Zenos E10 R and 'Poland's first supercar' the Arrinera Hussarya GT, with the team aiming to compete in the British and European GT4 racing series. Jaguar showed two Jaguar C-X75s, one on static display and the other in the live action arena, while the Williams Martini Racing motorhome heralded an impressive array of Williams Formula 1 cars and a very different form of motorsport was celebrated on the eye-catching Rally Feature with displays from both Wales Rally GB and BRC.

Motorsport stars taking to the Autosport Stage for interviews included Damon Hill OBE, Felipe Massa, Petter Solberg, Andy Priaulx, Gordon Shedden, Matt Neal, Mario Franchitti and Claire Williams, along with former *Top Gear* Stigs Ben Collins and Perry McCarthy. Regular visitors to Audi Driver International may recall that Perry was a guest speaker there one year, having driven for Audi at Le Mans.

Both *pistonheads* and *Autocar* had special displays promoting the classic hot hatch concept, although we were rather disappointed to see the Mk 1 and Mk 2 Golf GTI demoted to also-rans, with the Peugeot 205 GTI considered all-time great in the Hot Hatch Nirvana display.

Catering for the whole motorsport and performance tuning industry, Autosport International covers everything from rare classic cars in the Coys auction area, (where a RHD 1974 Ferrari 246 GT Dino sold for £220,000!) to BTCC and F1 displays and a Live Action arena, but as usual there is always something we can find of particular interest to Audi and VW enthusiasts, although – comparing with reference to our report of last year's event – maybe not quite so much of specific relevance to Audi owners and enthusiasts this time...

'Catering for the whole motorsport and performance tuning industry, Autosport International covers everything from rare classic cars to BTCC and F1 displays...'

Probably the biggest story on the Audi side of things was the unveiling, on Thursday's press and trade day, of the AmDTuning.com S3 for the 2016 Dunlop MSA British Touring Car Championship. Having fielded an Audi S3 during five events in 2015, the West Thurrock-based team will embark upon its first full season with the car this year, with high hopes of building on the early promise shown by the front-wheel-drive machine, last year driven mostly by Nic Hamilton in his BTCC debut season.

To celebrate a full-time switch to the Audi following two seasons running a Ford Focus, the team has drawn inspiration from one of the German manufacturer's most famous liveries, after taking the wraps off its new colours which pay tribute to one of motorsport's most iconic colour schemes. Replacing the all-black livery seen on the





S3 last year, the revised look has been designed to integrate elements of the legendary colours that appeared on the fearsome IMSA Audi 90 GTO of the late 1980s, as driven by the likes of Hans-Joachim Stuck.

The car was on display on the Cobra Exhausts stand for the remainder of the show, attracting plenty of interest from visitors and, we are sure, more than a few enquiries from potential drivers, although AmD's Shaun Hollamby told us that talks with drivers are ongoing, with an announcement to be made in due course.

'We're pleased to take the covers off the new-look Audi and think the end result will stand out on-track during the season



'It looks like AmD could be the sole exponent for Volkswagen Group cars in the BTCC this year...'



ahead,' said Shaun. 'We were keen to go back to our traditional colours this year, and we saw the ideal opportunity to incorporate elements of the IMSA Audi livery to celebrate our first full season with the S3.'

'Audi has a huge amount of history and heritage in motorsport, and while we are an independent team, we are proud to celebrate part of that heritage in the livery we have chosen. The famous Audi stripes go well with our own red and black, and also with the colours of Cobra Exhausts who we are delighted to have on-board as sponsors again this season.'

Following a media day at Donington in mid-March, the BTCC season begins at Brands Hatch in early April and we'll be following the progress of the AmD S3 with great interest. With the two A4s of the Rob Austin Racing team having retired this year, and Team BMR having switched from VW CCs to Subarus for 2016, it looks like AmD could be the sole exponent for Volkswagen Group cars in the BTCC this year.





‘Revo Technik’s A3 started off as a 2005 2.0 TFSI quattro, bought for just £4,500...’



‘TTS Performance had its twin supercharged R8 V8 on display...’



This year Revo Technik had a stand to promote its involvement in the VW-Audi tuning market, with two Audis on prominent display – a white RS 3 Sportback and most noticeably a highly modified A3. A long-term project, the A3 started off as a 2005 2.0 TFSI quattro, bought for just £4,500, but has been fully stripped and extensively upgraded with a Custom Cages FIA roll cage, Cobra seats and harnesses, Bilstein Clubsport suspension, Eibach anti-roll bars, Revo/Alcon big brake kit, Wavetrac diff and a 480 bhp Stage 4 tuned engine with Garrett GTX3071R turbo, Carillo rods and Scorpion exhaust, to name just a few of the special parts. It rolls on Revo RV019 8 x 19-inch alloys shod with Dunlop Sportmaxx tyres.

Nearby, TTS Performance had its twin supercharged Audi R8 V8 on display, with its pair of Rotrex C38 superchargers and





'Milltek Sport do more than dabble in the Audi market...'



re-mapping by MRC Tuning producing a total of 740 bhp and 800 Nm of torque!

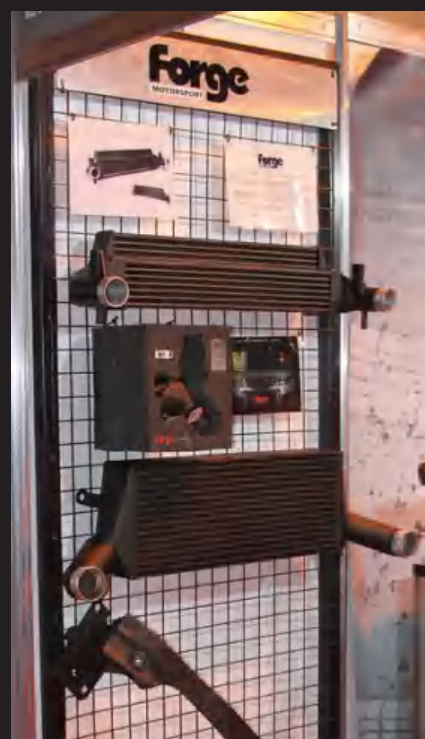
TTS pairs and mates the superchargers to a CNC billet mounting bracket and runs both superchargers from an 8-rib belt for reliability. The two superchargers blow through a huge chargecooler that controls the air temperature into the engine and is in turn cooled by a large front-mounted radiator. The conversion costs a cool £13,000 + VAT, with an all-in price of £18,000 including fitting and mapping.



Milltek Sport also do more than dabble in the Audi market, although this year their stand was most noticeable for the bright orange Mustang and the green race-modified Golf R of Maximum Motorsport, which is set to compete in the VAG Trophy and Milltek Sport Volkswagen Racing Cup this year.

Milltek MD Steve Pound also showed me their new cast-alloy big-bore downpipe and super flexible section as well as their new exhaust system for the Series 3 Audi TTS, with the display including a cutaway to show the revised internals with perforated pipes instead of conventional filling, designed to improve gas flow as well as the exhaust note and also much lighter too.

More new Audi tuning parts were found on display at the Forge Motorsport stand, with a new intercooler for the 8V RS 3 that is claimed to add nearly 20 bhp with no other modifications, and a new atmospheric dump valve arrangement for the RS 6. You can find full details in this month's products and services pages. →





SuperPro also had a new range of high-performance engine mounts for the MQB platform cars, designed to improve engine location for better traction, performance and handling, without incurring concerns about noise, vibration and harshness, while also on display were their aluminium control arms and various other suspension upgrades for all VW Group models.

The Performance Company (TPC) also had an impressive display of suspension and brake upgrades with a complete Series 1 TT front end showing off an array of V-Maxx upgrades including air suspension on one side and coilovers on the other, along with adjustable drop links, strut brace and anti-roll bar, plus sectioned V-Maxx Autosport brake discs and callipers.

Travel figures highly in the minds of many Audi owners and at Autosport International we saw Audis used to promote a couple of high-end endeavours, with a high-powered R8 and RS 6 displayed on the Cannonrun 3000 stand, promoting a 6-day European road trip that 'takes on some of the best roads in Europe, including the famous passes, along with the opportunity to visit museums, meet great people and most of all have fun'.

Travel Destinations, a company based in Welwyn Garden City that promotes tickets and travel for classic and performance car owners, including Le Mans, Nurburgring and other race events, also used an e-tron quattro to draw attention to its stand, and enjoyed a high-profile visit from Allan McNish during the weekend.

A full photo-report on all the other Volkswagen Group aspects of the event will appear in the forthcoming March issue of sister title *Volkswagen Driver*. 🇩🇪

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'A high-powered R8 and RS 6 was displayed on the Cannonrun 3000 stand, promoting a 6-day European road trip...'





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All in a day's work!

Two podium places for Audi's R8 LMS at the Hankook 24H Dubai sets the scene for a successful season for Audi Sport Customer Racing...



AUDI SPORT customer racing started the 2016 season with a strong result as Alain Ferté/Stuart Leonard/Michael Meadows/Laurens Vanthoor in the new Audi R8 LMS celebrated the first Audi victory in the Hankook 24H Dubai, in the United Arab Emirates, the first long-distance race of the 2016 racing season (January 14-16).

In third place, C.ABT Racing with Daniel Abt/Matias Henkola/Christer Jöns/Isaac Tutumlu Lopez/Andreas Weishaupt also clinched a podium result and four Audi R8 LMS cars finished the race in the top 10.

A total of 100 teams took up the hunt for the fastest times in nine different classes and although the desert sand made the race

track slippery, Hankook's Ventus Premium slick racing tyres provided consistently high grip and stability, keeping the fight for pole position riveting until the last second.

Two Audis finished up on the first grid row after Christer Jöns recorded the fastest qualifying lap with his Audi R8 LMS in 1:57.892 minutes, earning the German and his C.ABT Racing squad pole position, just over three-tenths of a second ahead of his compatriot and brand colleague Christopher Mies, racing for Land-Motorsport, in the second grid spot.

The production-derived race car, 50 per cent of which is based on the road-going model, that was handed over to the Audi customer teams at the end of 2015, certainly proved its prowess in qualifying, but 24 hours is a long time in racing and starting from the front is only the beginning of the challenge, for the men, the machines and the tyres...

Manfred Sandbichler, Hankook's Motorsport Director Europe commented: 'It'll be an exciting race on Friday, particularly because all the favourites are at the front. Unlike last year, the lap times are significantly better, with all the teams having praised the Hankook racing tyres, which delivered the expected strong performance.'

Christer Jöns (Audi R8 LMS), C.ABT Racing: 'The Hankook tyre quickly reaches its peak, which is perfect for qualifying. But it also remains consistently fast over a long time and that's important for the race, because you can push hard without the tyre deteriorating.'

Daniel Abt (Audi R8 LMS), C.ABT Racing: 'The Hankook tyre lasts incredibly long. I was amazed how little it degraded, even in relatively high temperatures. Therefore, I think it'll be an unbelievably exciting race on Friday and I'm very much looking forward to it...'

'The No. 4 C.ABT Racing Audi of Christer Jons, Andreas Weishaupt, Isaac Tutumlu, Matias Henkola and Daniel Abt completed the podium in third...'



The fact that the Dutchman Nicky Pastorelli (Chevrolet Corvette /Team V8 Racing) qualified third, a mere thousandth of a second behind the front pair, shows just how competitive the qualifying was. The 12 best-placed teams qualified under two minutes and were separated by just two seconds!

In the race itself, an Audi was running in front for 517 of the 588 race laps, with the lead changing a total of 22 times. Halfway through the race, Land-Motorsport defended the top spot, but subsequently dropped to fifth place and retired two and a half hours before the end of the race.

In the 15th hour, the Belgian Audi Club Team WRT took the lead, commandingly defended it, and crossed the finish line with a five-lap advantage over their closest rivals, giving the German manufacturer its first victory in the around-the-clock Middle Eastern enduro.

Laurens Vanthoor took the No. 19 Audi R8 LMS to a commanding 5-lap victory over the No. 16 Black Falcon Mercedes-Benz SLS AMG GT3, having outpaced and outlasted the competition, following a high rate of attrition for new-generation GT3 machinery.

WRT, in its 24H Dubai debut, held the lead from the overnight hours after the No. 28 Land Motorsport Audi ran out of fuel and lost five laps, falling to sixth place after a strong early run.

Having rebounded to second, Connor De Phillippi, who put in a starring drive through the night and morning hours, was forced to retire the Land entry with

less than three hours to go, due to gearbox failure, giving a clear run for the defending Blancpain GT Series champions after a near-flawless effort for Vanthoor and co-drivers Michael Meadows, Stuart Leonard and Alain Ferte.

With both of the debuting Black Falcon Mercedes-AMG GT3s running into early trouble, it was the team's SLS AMG GT3 that flew the flag for the German squad, a back-up chassis that only took to the track for the first time in warm-up.

Adam Christodoulou, Oliver Webb, Oliver Morley and reigning Pirelli World Challenge GTA champion Frankie Montecalvo were joined by car owner

'In the 15th hour, the Belgian Audi Club Team WRT took the lead and crossed the finish line with a five-lap advantage over their closest rivals...'



'Victory at Dubai marked the next major success after the new Audi R8 LMS had won the 24-hour race at the Nürburgring and the Sepang 12 Hours in 2015...'

Abdulaziz al Faisal for the runner-up finish, less than 48 hours after its main car caught fire during practice.

The No. 4 C.ABT Racing Audi of Christer Jons, Andreas Weishaupt, Isaac Tutumlu, Matias Henkola and Daniel Abt completed the podium in third, benefiting from a late-race engine failure for the No. 26 Konrad Motorsport Lamborghini Huracan GT3.

For the Belgian squad of Vincent Vosse, victory at Dubai marked the next major success after the new Audi R8 LMS had won the 24-hour race at the Nürburgring and the Sepang 12 Hours in 2015.

'Sincere congratulations to the two Audi customer teams on podium,' said Romolo Liebchen, Head of Audi Sport customer racing. 'On clinching today's success, our GT3 sports car has won all renowned endurance races and been victorious for the first time in the Middle East. This is a great way to set the stage for the market launch of the new Audi R8 in this region in March.' 🇧🇪

RESULTS Hankook 24H Dubai (January 14-16, 2016)

1	Belgian Audi Club Team WRT Audi R8 LMS	588 laps, 24:00:52.948
2	Black Falcon Mercedes SLS AMG GT3	583 laps +11:18.962
3	C.ABT Racing Audi R8 LMS	580 laps +7:47.484
4	Hofor-Racing Mercedes SLS AMG GT3	578 laps +5:51.436
5	Optimum Motorsport Audi R8 LMS	575 laps +6:11.797
6	Preci-Spark Mercedes SLS AMG GT3	575 laps +1:40.815
7	Car Collection Motorsport Audi R8 LMS	573 laps +4:10.417
8	V8 Racing Chevrolet Corvette	572 laps +2:15.189
9	HB Racing Lamborghini Huracan GT3	570 laps +4:12.587
10	Konrad Motorsport Lamborghini Huracan GT3	569 laps +23:35:49.653



ON THE 5.39-KM Dubai Autodrome, the Hankook Ventus Premium racing tyres also delivered a perfect performance under the most diverse conditions, maintaining a consistently high level of grip in the day-time with track temperatures of up to 40°C and at night on a dramatically cooler track surface. Thanks to the high consistency of the Hankook racing tyres, all drivers were able to drive fast lap times even at the end of their stints.

Manfred Sandbichler, Hankook's Motorsport Director Europe: 'The Hankook 24H Dubai was once again an outstanding success. It was a great challenge for 100 vehicles to compete and we're proud that with so many vehicles competing, there were again no tyre-related retirements during the entire 24 hours.'

'As always, the event was excellently organised and congratulations to our Hankook crew who worked very hard over the 24 hours to ensure that all drivers were supplied with good tyres. For Hankook, the race here in Dubai was a great start to the season.'

Thomas Baltes, Hankook's race engineer at Dubai: 'It was important that the teams reached the essential grip level on this sandy, slippery surface. Our Ventus Race rubber helped perfectly. Even during the slow phases in the Code 60 period, during which the slicks cooled dramatically, our Ventus Racing tyres coped excellently. All in all, it was a perfect performance.'

Laurens Vanthoor (Audi R8 LMS), Belgian Audi Club Team WRT: 'The Hankook tyres worked very well, and we experienced no problems whatsoever. We were able to push over the entire 24 hours, we overtook a lot and the slicks helped us tremendously in this. During the night the grip level was equally as good as during the day, and it was huge fun driving on Hankook.'

Christer Jöns (Audi R8 LMS), C.ABT Racing: 'Hankook's racing tyres are perfect for long-distance races like this. They were very durable, incredibly consistent and they offered a lot of grip. At this challenging endurance event there was a lot of kerb hopping and many parts were left lying on the track. I'm amazed that the tyres coped with this and we could even drive double stints on them.'



In the family way...

Experienced GT and sportscar driver Robin Liddell returns to the Audi 'family' to race a new R8 LMS in the USA in 2016. Martyn Pass spoke with the Scotsman at Daytona to reflect on a career that included a first acquaintance with Audi almost 20 years ago...



ROBIN LIDDELL will be racing an Audi R8 LMS in this year's WeatherTech SportsCar Championship in North America. The son of Eric, a former speedway rider who himself went on to become an accomplished GT and sportscar driver, Robin resumes his association with Audi having laid the foundations as an Audi Driving Experience instructor in 1998 and a front-runner in the Formula Palmer Audi category.

The articulate, normally quiet 'laid-back' Scotsman, whose character behind the wheel of a race car changes into a fiercely determined individual totally and utterly focussed on achieving success on a race track, is already impressed by the brand-new R8 LMS. An Audi roadcar driver for almost 20 years, Robin is as passionate now about the Four Rings brand as when I first met him in 1998.

'I had a reasonably unconventional start in motorsport as I hadn't done any karting as a youngster and didn't get into a racing car until I was 20 when I attended the Jim Russell School at Donington. My father Eric, however, was a successful sports car driver back in the 1960s. He competed regularly, including at Le Mans, and so I was

introduced to the sport through him. I was really inspired by the Group C sports car era in the 1980s. We spent time in the British Racing Drivers' Club at Silverstone where I would meet lots of interesting people in racing and was totally captivated by the cars and the exciting atmosphere of endurance racing.

'My first involvement with Audi was in 1998 when I started working as an instructor on the Audi Driving Experience. I did a lot of days at Goodwood in particular and I remember some years later doing a press launch for Audi UK and taking guests for a 'hot lap' around the racetrack in the latest RS 4 of the time, including celebrities such as the musician Jay Kay. I even managed to blag a ride alongside former World Rally Champion Hannu Mikkola in the Audi S1 Group B rallycar – that was a truly memorable experience! I later progressed to being the

face of the quattro Driving Experience, a role that I enjoyed very much and which also helped me to develop my personal skills outside the racing car.

'That year I competed in the five-race Formula Palmer Audi Winter Series with a best place of second at Brands Hatch. Looking back now, there were actually a lot of good drivers in it who went on to have considerable success in the sport, like Gary Paffett and Andy Priaulx. Through an interesting sequence of events, this move actually helped create the opportunity which led to me switching to GT racing and ultimately following a career path which has sustained me ever since.

'I did a couple of British GT races in 1999, but it was in 2001 when I switched to sports cars full time and I won the European Le Mans Series in a Porsche driving for the British team PK Sport.

'My first involvement with Audi was in 1998 when I started working as an instructor on the Audi Driving Experience...'



‘Having been with Stevenson Motorsports for the last eight years, we’d finished second in the championship on a number of occasions until finally, in 2015, we lifted the title...’

We then went over to the U.S. for the 12 Hours of Sebring the following year and finished third in GT against the ‘factory’ teams. This was really the first step in a move to try and forge a career in the U.S. I always remember a conversation with fellow Scot Allan McNish and him telling me that if I was serious about making a career in sports cars, I really needed to be looking Stateside at the American Le Mans Series which he himself had won numerous times with Audi.

‘I first drove at Le Mans in 2002, and remember thinking that this was the only thing I’d ever done where just being there felt like an achievement in itself. I still feel that way about it. It’s an amazing experience, especially when you have dreamt about doing it since childhood. I’ve raced there four times, three in GT and once in LMP2. Sadly, we’ve always had problems and success has eluded me, with a best finish of sixth. I remember the team was elated just to finish, although I felt bad because I found myself feeling absolutely no emotion for just finishing. I had just wanted to win!

‘Over the last 13 years racing Stateside, I’ve had many great wins including class victories in the Daytona 24 Hours and Petit Le Mans. I’ve also won at some of the great classic racetracks in the U.S. like Laguna Seca, Watkins Glen, Road America and Sebring. Having been with Stevenson Motorsports for the last eight years and notched up 23 wins in both the Rolex and Continental Series, we’d finished second in the championship on a number of occasions until finally, in 2015, we lifted the title. I couldn’t have been happier that we did it

with such a great group of people like John and Susan Stevenson.

‘I drove our new Audi R8 LMS at Daytona for the very first time at the Daytona test early in January. My first impression is that it’s a superb car. It’s a mean-looking piece of kit and when you fire it up and head out onto the track for the first time the V10 engine sounds fantastic. It just purrs along until you start to give it some beans, which is when it really starts to get on song. For me, the engine is the highlight, the power delivery is just fantastic and it’s super driveable.

‘Equally, the brakes, aerodynamics, gearbox and handling are all outstanding; it really highlights the development which Audi Sport has implemented on the car already, when you get a race car and straight out of the box you can run three days of continuous race testing on the high banks at Daytona and not have one single mechanical issue.

‘We at Stevenson Motorsports are obviously really excited about the forthcoming season in IMSA’s WeatherTech Series that continues with the Sebring 12 Hours on March 19. The team had been looking for a way to step back into the main IMSA series following the merger of ALMS and Grand Am two years ago and the R8 platform, together with the technical support available from Audi Sport, would appear to be the ideal solution.

‘The Audi R8 LMS isn’t the only car from the Four Rings I drive. I’ve driven Audis as my everyday road cars since 1999, starting with a 200,000-mile 5-cylinder 90! Currently, I’m running an A6 TDI quattro Avant S line, a car that is probably the best all-rounder I can think of and the perfect set of wheels for my off-season winter activities. I recently passed my Nordic ski instructor course and work for a small company called Nordic Challenge, an outfit set up and run by a group of British military veterans specialising in organising cross-country ski training and family holidays in Norway. It’s a great way of staying fit in the winter and getting into the mountains and experiencing the incredible unspoilt beauty of Norway, and an Audi quattro Avant couldn’t be more suited to the trip! Thinking about it, though, I wouldn’t mind one of these R8s in my garage! 🇩🇪



Flat out...

As we know only too well, a puncture can cause all sorts of problems, so what better than to use a tyre that you can still drive on, even when it is punctured?
Neil Birkitt reports...

REGULAR READERS of *Audi Driver* and its sister title *Volkswagen Driver* will know that, as a result of far too many unfortunate experiences, we have quite a 'thing' about punctures. One of the first items we check with any new road test car, or indeed any car we drive, is whether it has a serviceable spare wheel and tyre or not.

Once upon a time a spare wheel and tyre was a standard feature of all cars, but now there's a highly inconsistent and confusing variety of solutions to the problem of a puncture, ranging from a full-sized alloy spare wheel and tyre in some rare cases, to a smaller (temporary) steel road wheel and tyre in cars that have optional larger alloys fitted, through to the thin 'spacesaver' spares and inflatable spare (wheels and) tyres, all the way down to the so-called 'Mobility' kits that comprise a can of sealant and a 12-volt air compressor.

'Once upon a time a spare wheel and tyre was a standard feature of all cars, but now there's a highly inconsistent and confusing variety of solutions to the problem of a puncture...'

We seem to have had more than our fair share of punctures over the years, probably as a result of the very high mileages we cover – typically between 50,000 and 70,000 miles a year. While we've generally been fortunate that they've been fairly close to home and relatively easy to deal with, we're always aware that a puncture on a cold, dark, wet night by the side of a busy motorway could pose a huge – and potentially dangerous – problem even for those of us who are fully capable of DIY-fitting a spare wheel and tyre.

A spacesaver spare wheel and tyre is easier to fit than a full-sized spare, especially on cars with big heavy alloy wheels and tyres, but it is limited to moderate speeds and distance (80 km/50 miles at 80 kph/50 mph) and there is always the problem of how you carry the punctured (full-sized) wheel and tyre, usually dirty, damaged and smelly, if there isn't much room in the boot of the car – did someone mention TT Roadster? – or without any sort of boot space at all... R8?!

Although it's better than nothing, we've certainly never been happy with just a Mobility kit. I've just investigated the Mobility kit in the A3 1.6 TDI that we've recently taken delivery of for a road test, and – tucked away tightly, almost hidden, in the cubby hole at the right-hand side of the boot – even getting it out was a challenge,



WHILE WE'VE never been happy with spacesaver spares and even less with the Mobility kits, we'll also never forget the occasion when we drove an RS 4 Avant on a road trip organised by Audi UK's PR department from Ingolstadt to the UK and found that they'd supplied each car with a full-sized spare wheel and tyre strapped securely down in the load bay, just in case...

It was very reassuring, but it meant that there was precious little space left in the rear deck for our luggage, let alone the numerous cases of wine that the erstwhile Editor of *Audi Driver*, the late Paul Harris, had planned to stop and collect on the way back! There's no doubt that very large wheel and tyre sizes can pose a serious storage problem for many high-performance cars.

let alone then using it on that dark wet dangerous hard shoulder. But how many people know that these kits also have a 'shelf life' and need to be replaced after four years?! →



‘An optimised reinforced tough sidewall can adequately support the vehicle’s weight despite sudden air loss...’

So, while carrying a full-sized spare wheel and tyre is the ideal solution in most cases, with a spacesaver second best, an even better solution would be to have a set of tyres that can suffer a puncture and still keep on rolling, even if only at a reduced speed and for a modest distance, while still maintaining confident handling and good directional stability...

In fact, we had very little idea at all of what to expect when Bridgestone Tyres recently invited us to the international launch of a new product, with the promise that it would be something ‘game-changing’ in the tyre industry. Indeed, it was a significant innovation and one that could well solve a lot of the problems we’ve outlined above.

Called the Bridgestone DriveGuard, it has been designed so that the driver can maintain mobility despite tyre damage, in particular punctures, to the tread area and even the sidewall, while still capable of high standards of safety, wet performance, comfort and fuel-efficiency in normal use.

Unlike existing Run-flat tyres, there is no compromise in terms of complexity (the DriveGuard will fit standard road wheels),

no significant added weight, no increased road noise or reduced ride comfort and it maintains normal high-performance handling characteristics.

This zero pressure capability is largely due to an optimised reinforced tough sidewall which can adequately support the vehicle’s weight despite sudden air loss, maintaining sufficient vehicle control to be able to continue driving safely. Bridgestone will only recommend using it for 80 km at up to 80 kph (50 miles at 50 mph) – about the same as a spacesaver wheel and tyre, but without having to stop and change wheels, although it may well be capable of more if necessary...

Because driving in such a condition will normally create excessively high heat loadings which would subsequently destroy the tyre, the DriveGuard uses an advanced polyester carcass body ply which provides high resistance to heat generation, as well as Nano Pro-Tech, a tyre compound that reduces friction between carbon molecules, thus reducing heat generation in the sidewall and helping the tyre to hold its shape.

A high-tech cooling fin design incorporated into the sidewall also channels the increased heat from the sidewall towards



the rim and thus helps to preserve the tyre, thereby improving safety and durability, even in normal use.

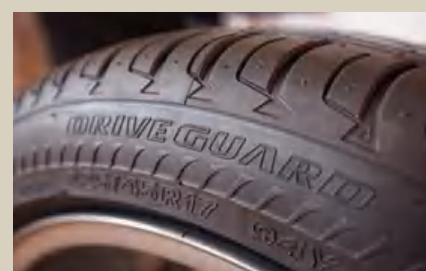
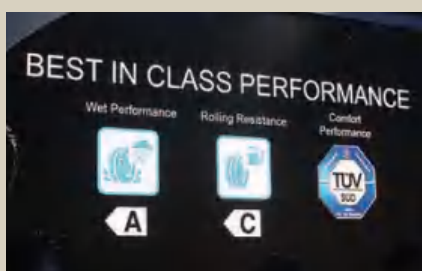
So, the Bridgestone DriveGuard enables the driver to maintain control and continue driving after a puncture, until it is safe to stop and repair or replace the tyre – no need to find yourself stranded on a motorway hard shoulder or in a remote country lane – and it is perfectly possible that the puncture can still be repaired afterwards, subject to careful inspection.

Unlike Runflats which often need very specific installation, the DriveGuard can be fitted to all conventional passenger vehicles regardless of the manufacturer or model, provided that the car is equipped with a tyre pressure monitoring system (TPMS), which has been mandatory in Europe on new cars since November 2014.

‘An even better solution would be to have a set of tyres that can suffer a puncture and still keep on rolling, even if only at a reduced speed and for a modest distance...’



'The Bridgestone technician hammered a large nail into the sidewall of the tyre...'



Clearly, the driver needs to be alerted to the fact that the tyre is punctured, so that they can proceed at reduced speed and distance, rather than drive on regardless, such is the high degree of control that can be maintained even when running on a DriveGuard tyre with zero pressure.

Just as importantly, the Bridgestone DriveGuard offers excellent performance in normal road use, with no compromise in terms of wet handling or rolling resistance. The EU tyre label values are an 'A' for wet performance and 'C' for rolling resistance, while independent testing by TÜV Süd has shown the DriveGuard to rate highly in terms of wet safety thanks to high siping along with optimised distribution of void in the centre part of pattern, to mitigate aquaplaning. Connected shoulder blocks with optimised contact pressure distribution also improve cornering capability while the high silica content compound with Nano Pro-Tech technology provides shorter stopping distances.

Unlike existing Run-flats (although Bridgestone clearly avoids that term, preferring 'extended mobility') the DriveGuard maintains a high level of ride comfort, due to a new crown structure design that provides improved absorption of road irregularities, an optimised reinforced rubber insert gauge, and lighter weight construction.

At the international press launch, we were able to conduct comparative drives of the DriveGuard along with the same

model of car fitted with a conventional Bridgestone Turanza T001. There was no readily discernible difference between them in terms of road noise or ride comfort, no mean feat when you consider that the Turanza was specifically designed for a quiet, comfortable ride.

Most importantly, of course, we were also able to drive with one of the Bridgestone DriveGuard tyres fully deflated in a rather dramatic demonstration where the Bridgestone technician first hammered a large nail into the sidewall of the tyre, before extracting it to achieve full deflation. We then drove the car, in this case a Toyota Auris, along a road route that incorporated steep twisting mountain roads, at speeds of up to 50-60 mph.

Clearly the deflation was not indiscernible, but it was more the noise of the punctured tyre and increased drag rather than any serious effect on handling that was evident and after a while I became quite confident in its handling ability, even snaking the car repeatedly from left to right in the same manner as race drivers keep their tyres warm on a green flag or safety car lap. In all honesty, I was probably more disturbed by the mediocre quality and performance of the Toyota Auris than any issue about driving it on the punctured tyre!

Bridgestone claims that DriveGuard eliminates the need to carry a spare tyre thereby reducing weight in the vehicle, in the interests of fuel efficiency etc, although we wouldn't go that far. With





a recommended range of 50 miles, there wouldn't be a problem in seeking a solution to the punctured tyre in normal local use. On a longer journey, though, you'd really want to use it only to get to the nearest motorway service station or to a suitable safe place to fit a full-sized spare wheel and tyre, if available, or seek a repair or replacement to continue your journey.

Clearly, though, on cars with no storage capability for a full-sized spare wheel, the DriveGuard is a major advantage – equal to the range and speed capability of a spacesaver spare and much more reassuring than a Mobility kit, and with no need at all to stop the car in what could quite possibly be a vulnerable location.

Also on the eco-friendly theme, Bridgestone points out that the DriveGuard is fully

recyclable through conventional recycling systems, not so with other tyres providing mobility solutions.

Already released in the US market, with great success, the Bridgestone DriveGuard will be available here in Europe from March 2016 onwards in 19 Summer sizes from 185/65 R15 up to 245/40 R18 and from June onwards in 11 Winter sizes from 185/65

R15 up to 225/40 R18, giving the potential for up to 32 million vehicles to be equipped with DriveGuard in 2016.

As regards prices, Bridgestone claims that it will be only slightly more expensive than a comparable premium tyre, and considerably cheaper than a conventional Runflat. You can find details at www.bridgestonetire.com/tire-brand/driveguard 🇩🇪

‘Clearly, though, on cars with no storage capability for a full-sized spare wheel, the DriveGuard is a major advantage – equal to the range and speed capability of a spacesaver spare and with no need at all to stop the car in what could quite possibly be a vulnerable location...’

TPMS

A factory-fitted tyre pressure monitoring system (TPMS) has been compulsory on all new passenger vehicles manufactured after November 2014. It was primarily conceived to reduce the number of traffic accidents caused by tyre failure due to under-inflation, but it also plays an important role in the interests of fuel economy, extending tyre life, decreasing downtime and maintenance and improving environmental efficiency.

There are two types of system:

Indirect TPMS uses information from the ABS sensors, which indicate if one of the wheels is rotating at a different speed due to underinflation, but it doesn't identify which wheel is at fault and it relies on the driver to recalibrate the system if new tyres are fitted, or if the tyre pressures are changed for any reason.

Direct TPMS uses sensors in each wheel of the vehicle to monitor the changes in tyre pressure. The sensors send signals to a receiver located inside the vehicle using a wireless connection. If low pressure or leaks are detected, an in-car alert system signals the driver's awareness and triggers a dashboard display or warning light.

The system sends a signal approximately every 30 seconds while driving and if low

pressure is detected, the driver is alerted immediately. If a tyre has low pressure at engine start-up the system will also indicate an alert.

On Volkswagen Group cars with Direct TPMS a central screen display also shows the actual pressure values for each wheel against a diagrammatic of the car.

Needless to say, the sensors fitted inside each wheel are expensive and need to be handled carefully when working on the wheels and tyres. Previously, there was no law to state that the TPMS system should work, so owners could disconnect the system and just use a normal valve instead.

From January 1, 2012 any TPMS fault would be recorded on the MoT test as an 'advisory' and owners recommended to seek further assistance from their workshop, but with effect from January 2015, a faulty TPMS will result in an MoT test failure. The law is not currently retrospective, and so does not apply to older vehicles (pre-2012).

There are several high-quality aftermarket TPMS installations available, like the TyrePilot system that we've reviewed in our products and services pages, and it is well worth considering fitting one if your car does not have a factory-fitted TPMS system or if you consider the indirect TPMS system to be inadequate.

TPMS was originally introduced by General Motors in the USA in March 1997 for the C5 Corvette, in conjunction with Goodyear run-flat tyres.

It came as a result of the Firestone and Ford tyre controversy of the late 1990s which was linked to more than 100 deaths from rollovers following tyre tread separation, when the Clinton Administration legislated for the mandatory use of a suitable TPMS technology in all light motor vehicles (under 10,000 lb.) to help alert drivers of severe under-inflation events. This act affected all light motor vehicles sold after September 1, 2007. Phase-in started in October 2005 at 20 per cent, and reached 100 per cent for models produced after September 2007.

European legislation followed, and from November 2012 all new vehicles in the M1 category (vehicles under 3.5 tonnes with less than 8 seats) were required by law to have TPMS installed. This applies only to the road wheels, not the spare.

By November 2014 all new passenger vehicles had to have TPMS installed by the manufacturer. The law is not currently retrospective, and does not apply to older vehicles, although there are some very good aftermarket installations available. In the UK, an illuminated TPMS warning light was previously only an MoT advisory, but will now result in an MoT failure from January 2015.

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TOP 10 PERFORMANCE AUDIS

Audi Driver presents 10 of what we consider are the typical Audi enthusiasts' all-time favourite performance cars, although we're sure that there are plenty more besides...



1.

Series 2 80 GTE/Sport (1983-1986)

SOME MAY argue that we should have included the Series 1 80 GT and GTE as the first candidates in this 'Top-10' round-up, but there can now only be handful left in serviceable condition in the UK. So, its spiritual successor, the Series 2 80 Sport, is a more natural choice, although itself fast achieving relative rarity and modern classic status.

Introduced in April 1983, it was known as GTE in countries other than Britain but was only available here as a four-door Saloon and badged as the 80 Sport. Its 1781 cc (1.8-litre) DZ engine with K-Jet injection was essentially the same as that of the early Mk 2 Golf GTI, but mounted longitudinally. Developing 112 PS and 160 Nm, it powering the relatively lightweight (980 kg unladen) 80 Sport from 0-60 in 9.5 seconds and on to a top speed of 120 mph, typically averaging around 35 mpg but capable of over 45 mpg on an economy run.

With front and rear spoilers, extra instruments in the centre console, cloth-trimmed sports seats, and a close-ratio 5-speed gearbox it was every bit a sporting saloon car, equal to but with a more mature appeal than the Golf GTI.

The earliest examples came with the 'cookie cutter' 6x14 alloy wheels, with 185/60-14 tyres, plain front brake discs and had a finned alloy sump; later cars had the 6x14 Ronal R8 multi-spoke wheels, vented front discs with a bigger servo unit (but still rear drum brakes), steel sump and the water-cooled oil cooler.



'Introduced in April 1983, it was known as GTE in countries other than Britain but was only available here as a four-door Saloon and badged as the 80 Sport.'

At the end of 1984 the 80 was face-lifted with a sloping grille and headlamps, bigger bumpers, a revised boot lid which opened down to bumper level, bigger rear lights and a new facia with revised switchgear, and central locking became standard. For 1986, the last year, it came with a sunroof and tinted glass. Power steering was an option.

Priced between £7,549 and £9,810 when new, asking prices for serviceable cars nowadays range between £1000 and £5000 depending on provenance and condition. It has to be said that only a few have survived in good condition after all these years, due to their dynamic appeal and/or relatively poor resistance to rust, and show-quality cars are a distinct rarity.

We have a great personal affinity for the 80 Sport here at *Audi Driver*, as both the erstwhile Editor, the late Paul Harris, and myself, Neil Birkitt, owned examples and drove them extensively. Robin Wager ran one as a company car when he was the Editor of *VW Motoring* magazine, and several Club Audi members such as Chris Grant (whose restored 1985 example is pictured above), Malcolm Gulliver, John Scott and Andy Foyle are also great fans of the 80 Sport.



The 80 Sport was originally road-tested in *Volkswagen Audi Car* in October 1984 and December 1985, and featured in December 1991, with model profile articles published in the July/August 2000 and March 2004 issues of *Audi Driver*, and a feature on the restoration of Chris Grant's 1985 80 Sport was published in the May 2010 issue. Visit the *Audi Driver* website or contact 01525 750 500 for reprints or back issues, subject to availability.

Series 2 80 quattro (1983-1984)

ON THE FACE of it, as a contemporary four-door Saloon, the Series 2 80 quattro looks similar to the 80 Sport but they couldn't be more different under the skin.

Introduced in December 1982, the 80 quattro was essentially the Audi 80 bodyshell but with the four-wheel drivetrain from the Ur quattro, along with the non-turbocharged five-cylinder 2144 cc (2.2-litre) engine with K-Jetronic injection developing 136 PS and 176 Nm. Essentially the same engine as that used in the Audi 100 it was designated with a 'KK' engine code, which is why you'll sometimes hear the Series 2 80 quattro referred to as 'KK quattro'.

Although 200 kg heavier than the 80 Sport, the 80 quattro was more powerful and just as fast, especially in wet and slippery conditions when its four-wheel drive system, with lockable centre and rear differentials, would provide superb traction. It was capable of 0-60 in 9.2 seconds and a top speed of 120 mph, with typical fuel consumption averaging just 30 mpg with 35-37 mpg on a long run.

Much more expensive (£2,500 more) than the 80 Sport, UK models came with power steering, central locking, electric windows, Cibie headlamps and fog lights as standard, as well as a leather-rimmed steering wheel. With front and rear spoilers very similar to those of the Sport, it was only readily distinguished from a distance by the different headlamps and up close by the quattro lettering in the rear side windows and in the heated rear window elements as well as the boot badge. Early examples had a 5E badge on the grille, but this was superseded by a quattro badge.

Standard wheels were 5.5 x 14-inch steel rims with 175/70 HR 14 tyres, but many came with the optional 6x14-inch Ronal R8s and 195/60 HR 14 tyres, very similar in appearance to those of the Sport but with the 4x108 mm bolt pattern rather than 4x100 mm. Other options included a steel sliding sunroof, electric mirrors, tinted glass and leather upholstery.

Suitably prepared, the 80 quattro also made its name in rallying, most notably when Stig Blomqvist came second overall on the Swedish Rally in 1983, and Bernard Daniche won the Group A category on the 1984 Monte Carlo Rally.

It was superseded in 1985 by a 112 PS 1.8-litre four-cylinder version of the Series 2 80 quattro, cheaper but ultimately not as rewarding to drive.

As with the 80 Sport, we also have a strong association with the 80 quattro as *Volkswagen Audi Car* ran one as a project car during the mid-90s and Neil Birkitt ran a 1983 example for many years. That same car has recently been restored by Chris Hoyle of the Classic Audi forum and we look forward to featuring it in the near future.

i The 80 quattro was originally featured in *Volkswagen Audi Car* in March 1983 and road-tested in January 1984 (2.2) and March 1986 (1.8). We also published model profiles in January/February 1999 and April 2004 and Neil Birkitt's example was featured in the December 2003 issue. Visit the *Audi Driver* website or contact 01525 750 500 for reprints or back issues, subject to availability.



'UK models came with power steering, central locking, electric windows, Cibie headlamps and fog lights as standard, as well as a leather-rimmed steering wheel...'





3.

Ur quattro 20V (1989-1991)

‘Undoubtedly, the Ur quattro 20V was the perfect swansong for the road-going range, and the most desirable option for regular road use...’

NO-ONE WOULD ever dispute the inclusion of the Ur quattro amongst the top-10 Audi enthusiasts’ cars, but then comes the problem of which one of the three distinct generations, WR, MB or RR?

Putting aside the short-wheelbase Sport quattro for a moment, as that is just too rare and specialised (and expensive!), we reckon you’d have to plump for the final 20V model as the ultimate incarnation of the road-going cars.

In fact, the 20V was very much an after-thought as Audi had originally planned to cease production of the Ur quattro in 1988. Or maybe that was just a marketing ploy, because the following year it introduced the Ur quattro with the turbocharged 20-valve ‘RR’ engine, with a modest increase in power from 200 to 220 PS but with incredible torque characteristics, its peak torque of 310 Nm developed from just 1950 rpm!

Forget turbo lag or ‘coming on the cam’, this engine produced incredible response from very low speeds, good all-round tractability, strong mid-range punch and a powerful top-end that would run to 6000 rpm. Audi claimed a top speed of 142 mph and 0-60 in 5.9 seconds, although our road testers at the time didn’t quite match that acceleration. In the real world, though, the 20V was significantly quicker from A to B than its predecessors. Typical fuel consumption was of the order of 25 to 30 mpg.

The suspension and transmission were essentially the same as the earlier MB models, with MacPherson struts front and rear, vented front discs, ABS braking, 5-speed manual gearbox with an automatic Torsen centre diff and manually lockable rear diff to help transmit the torque to the road surface, no matter how loose or slippery it might be. The alloy wheels were the familiar Ronal R8 multi-spoke rims, size 8.0 x 15-inch, shod with 215/50 tyres.

Externally, the 20V was not significantly different from the earlier models, with the trademark boxed wheelarches and front and rear spoilers.



Inside, the 20V had the orange digital dash, sports seats with Jacquard cloth and leather bolsters, a three-spoke sports steering wheel and a Blaupunkt Toronto radio-cassette with four speakers. A tilting and removable sunroof was specified as standard equipment for the 20V, but some cars seem to have been specially built without it.

Undoubtedly, the Ur quattro 20V was the perfect swansong for the road-going range, and the most desirable option for regular road use, although inevitably many have since been upgraded further with engine conversions, suspension and brake upgrades and even fitted with the 6-speed manual gearbox from the later S2 which effectively superseded it as the flagship of the high-performance Audi range.



The Ur quattro 20V was originally road-tested in *Volkswagen Audi Car* in January 1990, August 1990 and July 1991 and featured in a *VWAC* quattro special in November 1994. It was also featured in a retro-test in the Nov/Dec 2000 issue of *Audi Driver*, and was the subject of a model profile in the March 2005 issue of *Audi Driver*. The 20V has also featured in the ‘quattro special’ issues of *Audi Driver* in April 2001, October 2002, October 2004 and March 2014. Visit the Audi Driver website or contact 01525 750 500 for reprints or back issues, subject to availability.



4.

Avant RS 2 (1994-1995)

YES, TO BE CORRECT in our terminology we've referred to it as the Avant RS 2, the name under which this Audi-Porsche hybrid was launched at the Frankfurt Show in September 1993.

With the 20-valve turbo-engined S2 coming to the end of its life, Audi collaborated with Porsche engineers to develop an ultra-high-performance model, combining the S2 Avant bodyshell built at Ingolstadt with the modified chassis, engine and brakes that had been developed by Porsche, with final assembly carried out at the Porsche factory at Zuffenhausen.

With a deeper front spoiler and revised rear bodywork, along with Porsche mirrors, the RS 2 was further enhanced with bigger Brembo brakes and 7.0 x 17-inch Porsche Cup alloy wheels from the 968 Clubsport, fitted with 245/40 R17 Dunlop SP8000 tyres, while the suspension was uprated with Bilstein springs and dampers and thicker (28/16 mm) anti-roll bars front and rear.

But the *piece de resistance* was under the bonnet, where Porsche had re-engineered the 2226 cc 20-valve turbocharged five-cylinder inline engine to produce 315 PS, instead of the 230 of the 1992 ABY S2. This power increase was mostly achieved by a larger turbocharger, running at higher boost, also accompanied by revised inlet and exhaust manifolds, a 911 fuel pump, bigger injectors and uprated camshafts.

Maximum torque increased from 350 Nm at 1950 rpm to 410 Nm at 3000 rpm, which meant that the extra performance was felt with quite a substantial punch in the mid-range. What some might call turbo lag was reported by road-testers as 'acceleration that was shockingly quick once the engine started to pull!'

In conjunction with a 6-speed manual gearbox and Torsen diff four-wheel drive, its performance was startlingly quick for such a large four-door estate car, with acceleration from a standing start to 60 mph in 5.1 seconds and a top speed of 163 mph. Typical fuel consumption was 22 mpg overall, with 28-30 mpg achievable only on a steady cruising run.

Originally, there were no plans to build right-hand-drive examples but following the reaction to the Avant RS 2 at the 1993 London Motor Show



Audi sanctioned the production of 180 RHD examples for the UK, priced at £45,705, with records showing that there may well have been more than 200 registered here in the UK, including some private LHD imports.

The specification included air-conditioning, driver airbag, Recaro front seats, electric windows front and rear, white-faced instruments and a CD autochanger. Standard upholstery was Nappa leather, with Alcantara in conjunction with leather bolsters as an option.

There was never an official production Saloon version of the RS 2, although Audi built two examples for internal use, and there are inevitably some unofficial conversions.

'Audi collaborated with Porsche engineers to develop an ultra-high-performance model based on the S2 Avant bodyshell...'



The Avant RS 2 was originally road-tested in *Volkswagen Audi Car* in July 1995, and we also published a model profile in the March 20012 issue of *Audi Driver*. This was further expanded and accompanied by several other RS 2-specific features in the 'RS 2 Special' issue of *Audi Driver* published in March 2007. Visit the *Audi Driver* website or contact 01525 750 500 for reprints or back issues, subject to availability.

B5 RS 4 (1999-2001)

TOP 10
PERFORMANCE
AUDIS

UNDOUBTEDLY the spiritual successor to the Avant RS 2 was the B5 RS 4 Avant, first announced in August 1999 as 'the most extreme interpretation yet of the high-performance lifestyle estate car concept, a fully-fledged production vehicle which genuinely elevates estate car performance into the realms of the supercar'.

Produced only just before the first A4 was replaced by the second generation, this time the engine development was entrusted to Cosworth, whose technology division was a subsidiary of Audi in 1998. Based on the engine of the S4, the 2.7-litre bi-turbo V6 was uprated from 265 PS to 380 PS for the RS 4 by using specially manufactured cylinder heads, bigger (K04) turbos and larger intercoolers, on top of an engine with a stronger crankcase, crankshaft and con-rods.

The engines were assembled by Cosworth Technology at Wellingborough, Northants and combined with the Motronic ME7 engine management and two-branch exhaust system with metal catalysts that had been developed by quattro GmbH in Germany, which also developed the motorsport-derived 360 mm front brakes and 312 mm rear discs.

In conjunction with a suspension stiffened and lowered by 10 mm compared with the S4, and track widened by about 50 mm, with 8.5 x 18-inch multi-spoke alloy wheels and 255/35 tyres housed under specially flared wheelarches, the RS 4 certainly had the dynamic ability to handle all that power.

In conjunction with a 6-speed manual gearbox and Torsen diff four-wheel drive system, the RS 4 was a genuine sub-5-second car from 0-60 mph, with its top speed electronically limited to 155 mph, although it was capable of nearer to 170 mph.

More flexible, tractable and user-friendly than the RS 2, the RS 4 was a more driveable car for the average enthusiast, certainly less demanding of its driver, and inevitably more popular in sales terms. Production commenced in the summer of 2000, with over 6,000 manufactured of which at least 400 were with right-hand drive for UK customers, including notable celebrities like the pop singer Jay Kay, whose RS 4 was recently offered for sale at a specialist outlet in Gloucestershire.

Equipment levels were basically the same as the S4, with power steering, ABS, EBD and EDL, electronic climate control, xenon headlamps,

Recaro sports seats with electric adjustment, with a choice of standard leather, Nappa leather or leather and cloth, and carbon-fibre or black piano interior trim. Options included satnav, Sideguard airbags and electric sunroof.

Some controversy surrounded early problems with the alloy wheels, which seemed prone to bending when subjected to rough road conditions; many were replaced – sometimes several times – under warranty until Audi introduced a stronger construction.

All things considered, though, the RS 4 was an exceptional all-rounder, combining supercar performance and handling along with the everyday practicality of a four-door Avant.



The B5 RS 4 was originally road-tested in *Audi Driver* in March 2001, with subsequent features in September 2004 and May 2006. The 'RS 4 Special' issue in February 2010, which includes a buyers' guide, original road-test reprint, and interviews with owners, was followed by further interviews in the March 2010 issue. Andrew Chapple also wrote about ownership of his B5 RS4 in the May 2008 and December 2013 issues. Visit the *Audi Driver* website or contact 01525 750 500 for reprints or back issues, subject to availability.





6.

Series 1 TT quattro Sport (2005-2006)

THE SERIES 1 TT was a game-changer for Audi, making full use of the platform engineering strategy at the time to produce a cost-effective 2+2-seater sports car. With a choice of turbocharged 1.8-litre 20-valve and naturally aspirated 3.2-litre VR6 engines, in combination with Haldex coupling four-wheel drive, the TT offered high performance and excellent driving dynamics with everyday useability, along with distinctive styling.

As is often the case towards the end of a particular generation, along came what many consider to be the best of the bunch, certainly as far as driving dynamics is concerned, with the introduction of the TT quattro Sport.

Readily distinguished by its black-painted roof, whatever body colour was chosen, and enlarged rear spoiler, the TT quattro Sport also featured essentially the same body kit that had been used on the TT 3.2.

Inside, the rear seat was replaced by a simple luggage shelf, with a fixed retaining net secured to a horizontal tubular brace bar between the rear suspension towers. A no-compromise two-seater, with Recaro bucket seats and an Alcantara trimmed steering wheel, the TT quattro Sport clearly alluded to the trackday image, and it had the performance to match.

The power output of the 225 PS 1.8T engine was raised to 240 PS, largely by changes to the engine management mapping, with the torque increased from 280 to 320 Nm, both achieved at higher engine speeds. Slightly lighter than the standard TT, by about 50 kg, its performance was substantially improved, with a 0-60 time of 6.0 seconds and a top speed (electronically limited) of 155 mph. On our road test we achieved 26 mpg overall and 32 mpg on a cruising run.

One special feature of the TT quattro Sport is not always so obvious; although it has the same size tyres (235/40-18) all round, the multi-spoke

Ronal wheels are slightly wider at the rear, at 8.5 inches wide compared with 8 inches at the front, providing a subtle difference in the handling balance presumably considered significant by the chassis engineers at Audi. Not everyone realises this, though, and we've heard of some cars where the wheels and tyres have been inadvertently swapped front to rear and even diagonally!

Headlamps were the xenon discharge units and the standard sound system was the Chorus 2 radio/cassette unit, although the options list included the Concert 2 radio/CD, Bose speakers and navigation system.

It is understood that only 800 right-hand drive examples were allocated for the UK, with Avus silver, Misano red, Mauritius blue and Phantom black the only standard body colours, although an optional extra colour could be chosen from the exclusive colour programme.

It all added up to a very special Series 1 TT and we concluded our final road test in February 2006 by saying that it was 'likely to become the classic TT of all time...'



'It all added up to a very special Series 1 TT and we concluded our final road test in February 2006 by saying that it was 'likely to become the classic TT of all time...'



The TT quattro Sport was originally road-tested in *Audi Driver* in July 2005 and again in February 2006. We also featured Damien Ward's modified example in the June 2014 issue, and a series of features running since January 2015 has charted Andrew Chapple's modifications to his TT quattro Sport for trackday use. Visit the *Audi Driver* website or contact 01525 750 500 for reprints or back issues, subject to availability.

B7 RS 4 (2006-2008)

THERE WAS no RS 4 version of the B6 chassis but Audi seems to have more than made up for it with the B7 version, unveiled in February 2005 and introduced in 2006, when they produced versions with not only Avant but also Saloon and Cabriolet body styles

This time the RS 4 saw a very different engineering approach, with the use of a naturally-aspirated 4.2-litre V8 engine that was developed from the all-alloy V8 in the B6 S4. Extensively reworked and strengthened, including a new cylinder block, it was a quad-cam engine with four valves per cylinder, instead of five on the earlier variant, and variable valve timing with an alloy inlet tract with adjustable tumble valves.

With two Bosch DI-Motronic MED 9.1 engine management control units and fuel stratified (FSI) direct injection, running on 98 RON unleaded, it developed peak power of 420 PS at 7,800 rpm and maximum torque of 430 Nm at 5,500 rpm – a heady performance that was accompanied by a soul-stirring V8-cylinder engine and exhaust note.

The outright performance of the RS 4 was matched by its superior chassis dynamics, with the Gen 3 Torsen diff featuring a 40:60 rearward bias for greater agility and with traction further aided by the EDL and ASR functions of the fully selectable Electronic Stability Control system, along with the active Dynamic Ride Control (DRC) damping system which was designed to counteract pitch and roll.

Standard wheels were 9.0J x 19-inch with 255/35 ZR19 tyres (8.5 x 18s were an option) and along with 30 mm lowered and stiffened suspension, 365 mm Brembo brakes (ceramic discs were an expensive option), a wider track (+37 mm front and +47 mm rear) and electro-hydraulic power steering, the B7 RS 4 was every inch a pure driving machine, considered by many to be more than a match for the BMW M3.



‘This time the RS 4 saw a very different engineering approach, with the use of a naturally-aspirated 4.2-litre V8 engine...’

Almost inevitably, the B7 RS 4 received many accolades, including ‘World Performance Car’ in the International World Car of the Year awards in 2007 and was the subject of a great many special features and TV sequences. Who can forget the famous BBC TV *Top Gear* road-trip when Jeremy Clarkson raced the RS 4 up a twisting, turning 60-mile mountain road in French Alps, just failing to beat ace free-climber Leo Houlding to the top, only to then have him beat the RS 4 back down again by BASE-jumping off the cliff he’d just climbed! The RS 4 might have been beaten, but it was considered far from a loser in the overall assessment as Clarkson declared it better even than an M3...

‘Audi produced versions with not only Avant but also Saloon and Cabriolet body styles...’



The B7 RS 4 was originally road-tested in *Audi Driver* in May 2006 and repeated in February 2013, along with interviews with owners which also continued into the March 2013 issue. The RS 4 Cabriolet was road-tested in the September 2006 issue along with another article about the construction of the RS 4 and there was an article including interviews with RS 4 owners in the October 2007 issue. We featured the MTM modified RS 4 in January 2007, and Andrew Chapple compiled a buying guide to the B7 RS 4 in February + March 2011. Visit the Audi Driver website or contact 01525 750 500 for reprints or back issues, subject to availability.



'Not content with merely equipping it with a 5.0-litre V10 engine, it was also twin-turbocharged...'

**TOP 10
PERFORMANCE
AUDIS**



8.

C6 RS 6 (2008-2010)

WITH THE high-performance RS 2 and RS 4 models, Audi had clearly set itself an agenda to develop an ever more powerful range of super Saloons and Avants. After successfully producing a twin-turbo 4.2 V8-powered RS 6 version of the C5 S6, the bar was set even higher for the sixth generation model that was introduced at the Moscow Show in late 2007. Not content with merely equipping it with a 5.0-litre V10 engine, it was also twin-turbocharged...

The non-turbo version in the S6 had been potent enough, with 435 PS and 540 Nm, but forced induction for the 5.0 V10 in the RS 6 pushed this up to 580 PS at 6250 rpm and produced a tremendous torque figure of 650 Nm all the way from 1500 to 6250 rpm.

The only transmission capable of reliably transmitting that sort of power and torque was a 6-speed ZF automatic with Tiptronic shift, its gear ratios carefully matched to the characteristics of the engine.

Initially introduced as an Avant, the bi-turbo V10 produced a 0-100 kph (0-62 mph) time of 4.6 seconds, with 220 kph (125 mph) coming up in 14.9 seconds. The top speed was limited electronically to 155 mph, with a factory option to de-restrict the top speed to 170 mph. The Saloon version that followed a few months afterwards was slightly faster, stopping the clock at 4.5 seconds for the 0-62 mph time.

Even more impressive were the 30-50 and 50-70 mph times, just 2.0 and 2.6 seconds respectively, although there was a price to pay for all this performance, with an overall average of 17-18 mpg and even economical driving could barely achieve 25 mpg, giving a fairly limited range from the 17.6-gallon fuel tank.

Other special features of the C6 RS 6 were that it had aluminium front wings and bonnet, flared front and rear wheel arches and large frontal air intakes for the two side-mounted intercoolers and extra radiators. LED daytime running lights were incorporated into the main headlamp housings that provided adaptive headlights which swivelled on cornering.



Dynamically, the C6 RS 6 used the latest version of the Torsen four-wheel drive system that had been used on the B7 RS 4, with a basic 40:60 rear bias, but capable of adjusting to a maximum of 100 per cent to the rear or 80 per cent to the front wheels, as required. Additional traction requirements were catered for by the EDL and ASR electronic functions in the Electronic Stability Control (ESC) system.

Like the previous RS 6 and the B7 RS 4, the C6 RS 6 had Dynamic Ride Control (DRC) adaptive damping and Servotronic speed-dependent power steering. With 390 mm discs and 6-pot callipers at the front and 356 mm discs at the rear, with 420 mm Ceramic discs also available as an option. Along with the standard 9.5J x 20-inch alloy wheels running 275/35 ZR 20 tyres, the C6 RS 6 also had the handling and braking ability to harness its prodigious performance.

We concluded our road test of the C6 RS 6 Avant in September 2008 with the words 'No other car in the world can offer this blend of performance, roadholding, traction and practicality!'



The C6 RS 6 was originally introduced in *Audi Driver* in October 2007 and road-tested in the September 2008 (Avant) and December 2009 (Saloon) issues. Visit the Audi Driver website or contact 01525 750 500 for reprints or back issues, subject to availability.



'It provided phenomenal performance to go along with its distinctive 5-cylinder engine and exhaust note...'

9.

TT RS (2009-2014)

THE REIGN OF the Series 1 TT quattro Sport as the most dynamic TT only lasted as long as 2009, when Audi introduced the new RS version of the Series 2 TT at the Geneva Show.

Available in both 2+2 Coupé and two-seater Roadster body styles, this was the first time that the RS designation had been applied to a compact sports car, unless of course you count the famous Porsche 911 Carrera RS of 1973.

The TT RS certainly lived up to its name, though, powered by a turbo-charged 2.5-litre 5-cylinder inline engine that was a highly developed version of the 150 PS 2.5 unit that was first seen in the US Jetta, Passat and Beetle. In the TT RS, though, it developed more than double that output, with peak power of 340 PS from 5400 to 6700 rpm and maximum torque of 450 Nm produced between 1600 and 5300 rpm.

In combination with a 6-speed close-ratio manual transmission and Haldex-type four-wheel drive system, it provided phenomenal performance to go along with its distinctive 5-cylinder engine and exhaust note, powering the TT RS Coupé from standstill to 60 mph in under 4.5 seconds, with the slightly heavier and less aerodynamic TT RS Roadster only a couple of tenths slower.

The TT RS was also later (from 2010) available with a 7-speed version of the dual-clutch direct-shift (DSG) automatic gearbox (called S tronic by Audi) which had been developed specially to deal with the higher power and torque output.

With the ride height reduced by 10 mm due to stiffened springs and firmer damping, and with the brakes upgraded to the 370 mm diameter two-piece cross-drilled and vented front discs, with 4-pot callipers, the TT RS provided suitably dynamic handling, further enhanced if it was specified with the optional magnetic ride adaptive dampers which allow the driver to switch between comfort, normal and sport settings using the Drive Select button.

Externally, the TT RS is readily distinguished by its restyled front bumper with its large side air intakes for the intercoolers and at the rear, along with a diffuser with large oval tailpipes on either side, it has a choice of a fixed rear wing type of rear spoiler or the more discreet retractable rear spoiler panel which rises up from the bodywork at higher speeds.



Inside it has sports seats trimmed in leather and Alcantara, with Recaro RS bucket seats available as an option. Carried over from the B7 RS 4 is a 'Sport' button that sharpens up the throttle response and enhances the exhaust note.

In 2012 the TT RS Plus was launched, with the engine uprated to produce 350 PS at 5500 rpm and 465 Nm of torque from 1650 rpm, reducing the 0-62 mph time to 4.3 seconds for the manual and 4.1 seconds for the S tronic, with the top speed increased to 174 mph. It remains to be seen how the RS version of the Series 3 TT will improve upon that...

i The TT RS was originally introduced in *Audi Driver* in July 2009 and road-tested in the November 2009 (Roadster), April 2010 (Coupé) and March 2013 (TT RS Plus) issues. We also featured a TT Roadster buying guide in the March 2015 'TT Special' issue, along with a feature on Paul Curry's TT RS Coupé, and Andrew Chapple reported on a Euro road trip with his TT RS Roadster in the September 2015 issue (which also featured a road test of the Series 3 TTS). Visit the Audi Driver website or contact 01525 750 500 for reprints or back issues, subject to availability.

10.

R8 (2006+)

HOW COULD WE complete a list of the top-10 enthusiast Audis without including the R8? Designed, developed and manufactured by Audi subsidiary quattro GmbH, and introduced at the Paris Show in September 2006, named after the successful Le Mans racer, the mid-engined all-wheel-drive two-seater supercar was an instant success as an alternative to cars like the Porsche 911.

Initially equipped with the high-revving 420 PS / 439 Nm naturally-aspirated 4.2-litre V8 engine from the B7 RS4, but modified to use dry sump lubrication, and with the permanent four-wheel drive system biased 30:70 towards the rear it was capable of a 0-60 time of 4.4 seconds and a top speed of 187 mph. The choice of transmission was between a 6-speed manual with a distinctive 'Ferrari-style' open-gate shifter, and the 6-speed R tronic automatic, essentially an automated manual, with steering wheel paddles.

The R8 V10 followed in 2008, using the naturally-aspirated 5.2 V10 unit from the Gallardo / C6 S6 / D3 S8, developing 532 PS / 530 Nm and capable of 0-62 mph in 3.9 seconds and a top speed of 196 mph. It also had a more aggressive styling along with LED headlights, Bang & Olufsen sound system, bigger brakes and different wheels.

Soft-top Spyder versions followed in 2010 and 2011, without the distinctive sideblades but with its clean lines enhanced by the soft top hood being stored neatly under the rear bodywork when not in use, and the lack of visible roll-over hoops. Hidden in the rear bulkhead these would deploy automatically in the event of a rollover.

Mid-2010 saw the release of the limited edition (only 333 worldwide, with 35 for the UK) lightweight R8 GT. With the power of the V10 increased to 560 PS and 100 kg reduced from the unladen weight by using lightweight seats and a fixed wing rather than hydraulic rear spoiler, it clocked 0-62 mph in 3.6 seconds and could achieve a top speed of 199 mph.

The 2010 V8 also saw the 4.2 V8 increased in power to 430 PS, also available in the Spyder, while a GT version of the V10 Spyder came with 560 PS, giving 0-62 mph in 3.8 seconds and a top speed of 197 mph.



An R8 V8 Limited Edition (just 100) followed in October 2011, with titanium-effect wheel and special colours plus red brake callipers, built to celebrate the 10th win for Audi at Le Mans.

In July 2012 Audi revised and facelifted the R8 range, most notably replacing the clunky R tronic auto gearbox with its superior 7-speed S-tronic double clutch transmission, giving the V8 a 0-62 mph time of 4.3 seconds and the V10 3.6 seconds. Also released at the same time was the R8 V10 Plus, only available as a Coupe, with 550 PS / 540 Nm and capable of 0-62 mph in 3.5 seconds and a top speed of 197 mph.

The second generation, sharing its platform with the Lamborghini Huracán, was introduced at the Geneva Motor Show in 2015. No longer available with the 4.2 V8 (although there are rumours that a 5-cylinder 2.5 TFSI version might one day be available) there are now three versions, the standard 540 PS V10 and the more powerful 610 PS V10 Plus as well as the full electric e-tron (456 PS / 920 Nm) capable of 0 to 62 mph in 3.9 seconds and an all-electric range of over 280 miles.

Whichever R8 you choose, it will provide virtually race car performance and handling along with everyday usability, although with only two seats and very limited luggage capacity you'd probably only want to be driving it to the nearest race circuit rather than engaging in a week-long European road trip...



The R8 was originally introduced in Audi Driver in November 2006 with a first drive report in March 2007. Major road-tests followed in the December 2008, May 2010 (V10 Spyder), June 2010 (V10), September 2011, June 2013, October 2013 (V10 vs 911) and April 2015 (V10) issues. Our report on the face-lifted R8 range appeared in November 2012 and our reviews of the latest R8 V10 appeared in the April, September and October 2015 issues. We also have a great many other features covering individual model launches and performance-modified examples. Visit the Audi Driver website or contact 01525 750 500 for reprints or back issues, subject to availability.

**TOP 10
PERFORMANCE
AUDIS**



‘It is remarkable that Audi decided to switch from LHD to RHD only weeks before the next chassis variant was due...’

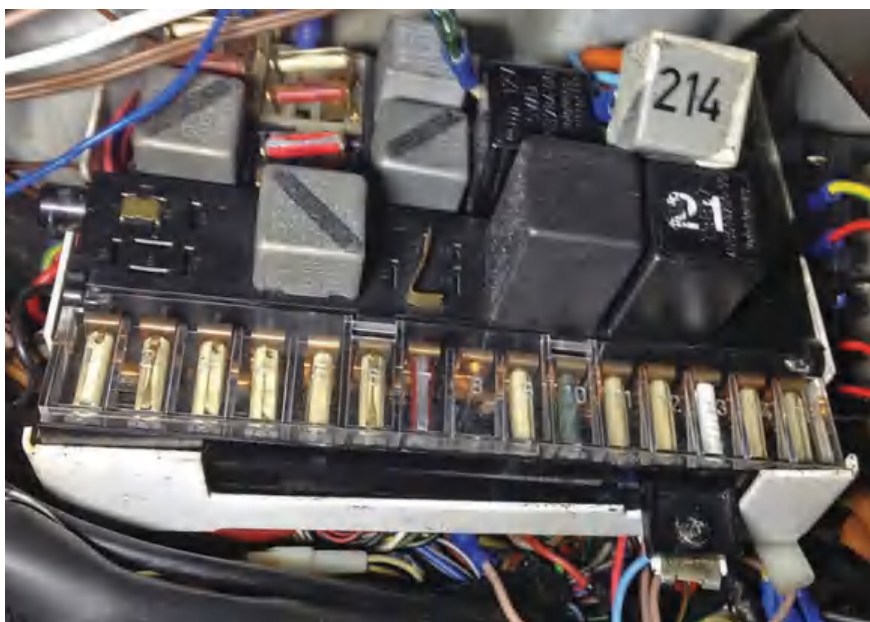


The CA chassis

Darron Edwards
continues his analysis of the early Ur-quattros with some discussion of the details of the CA chassis (1981-82)...

IN AUGUST of 1981, Audi started production of their second Ur quattro chassis production run, designated CA. These cars differed very little externally from the previous cars as most of the improvements made were under the skin. The engine bore and stroke remained the same and power output stayed at the quoted 200 PS.

Some wiring improvements were made to try to reduce the load on the electrical system, although the ‘euro’ type fuse board was retained. These early fuseboards suffered in later years from bad contacts on the pins at the rear of the boards. Electrical resistance would build up across the contacts and cause the connector blocks to get very hot. All of these early cars had the main headlights, and other equipment, running straight through the ‘X’ contact on the ignition



switch, which put a great strain on the wiring, especially on a cold winter morning with headlights, demister and fan on etc. Later cars would benefit from a large current (40 Amp) relay, alleviating this problem.

Standard equipment remained the same for the 1982 model and the poor performing Hella twin headlamps were still fitted as on the previous year's model. These would

be replaced on later production cars by the much improved Cibie one-piece units, but not until after the annual factory closedown in the summer of 1982 by which time the CA chassis production run had come to an end.

An external change that occurred on this model was the removal of the front and rear metal trim insert that was fitted to



the windscreen rubbers. A solid rubber seal was used, removing the need for the metal retaining trim. All quattros that followed were fitted with this new type of front and rear windscreen seal.

Underneath the car, the suspension and ride height was unchanged. The rear anti-roll bar, seen on the previous cars, was fitted until the end of this chassis run. This was removed for the 1983 year model. I've driven both types of Ur quattro, with and without rear anti-roll bar and the difference is very noticeable. The cornering of early cars is slightly sharper, more agile, but the big difference is noticed when lifting off the throttle when in mid-corner. The cars with the rear anti-roll bar tend to shift into oversteer rather violently when the throttle is lifted which may well explain why Audi decided to do away with the rear anti-roll bar on later cars. What may have been perfectly desirable for a rally driver probably wasn't the best thing for a company director on his way to a business appointment who'd gone just a little too fast into a corner and then lifted off in response.

Internally, the 1982 year model used the same 'moccha' interior as the previous model, trimmed with the hard-wearing velour upholstery. The bolsters on the front seats were longer than on the previous

Top left: Solid rubber windscreen seal.
Top right: Front seat bolsters were made longer. **Above left:** The 'brow' above the dash binnacle. **Above right:** Only 12 factory right-hand drive models were made for the UK market in 1982.

chassis and this gave the front passengers a little more lateral stability and comfort around the thighs.

Another feature that appeared on the 1982 car was an added 'brow' above the driver's dash binnacle. This was a piece of ribbed plastic, added onto the existing surround, and it looked quite sporty as well as having a practical use in shading the instruments.

The hand-operated diff lock levers were dropped from the middle of the previous chassis run, so all CA chassis cars were fitted with the pneumatic system that utilised a Bowden cable that runs underneath the car from front to rear to operate the centre differential lock. It proved problematic and this system was superseded from 1984. The easy solution was to move one of the pneumatic actuators from the rear diff housing to the side of the gearbox, thus removing the need for the Bowden cable.

As from the beginning of production, all Ur quattros were factory built in left-hand drive form only. This continued through 1981. Some cars were converted to right-hand drive in the UK by GTI Engineering and David Sutton Motorsport. Clearly there was a demand for a proper right-hand-drive version in the UK. Audi received formal requests for a purpose-built UK car as early as 1980 but this was only granted by the factory in mid-July of 1982.

It is remarkable that Audi decided to do this only weeks before the next chassis variant was due to be produced. In the last month of the CA chassis run, Audi built 17 right-hand-drive vehicles, 12 of which were destined for the UK. These cars are the rarest of all Type 85 variants. Phil Jameson of the quattro owners' club has tracked down 10 of these rare UK cars. It's testament to the build quality that most of these prototype right-hand drive cars are still in existence. These cars were all registered in the UK after August 1, 1982 so all would have probably appeared on 'Y' registration plates. A quad-headlamp quattro on this plate would likely be a late production right-hand-drive car so if you see one for sale, check to see if the V5 carries the designation 'RHD'. If this is the case, you may be able to grab yourself the rarest Ur quattro of all... 🇩🇪



A car called Destiny...

John McLannahan *recounts the story of his wife's 1981 Audi 100 CS, a tale of ownership that was clearly just meant to be...*

MANY VISITORS to the Classic Motor Show at the NEC last November admired our left-hand-drive 1981 Audi 100 CS on display on the Club Audi stand, and it has quite an interesting story to tell...

The Fahrzeugbrief (title certificate) shows that our Audi was built by Audi NSU Auto Union AG and first registered by Autohaus Kober in Esslingen on December 3, 1981, with the plate ES-Y 9912. Some 10 service stamps (at approximately 7500-km intervals) and two owners later, my wife Jacqui bought the car at 76,000 km, on July 22, 1990, and because she lived and worked in Stuttgart at the time, the car had to be re-registered as S-KS 7657.

When she bought it, she hadn't even passed her test – but a friend of a friend had advised her that he knew of a really good car for sale. He was probably right.

Incidentally, when she did pass her test, and because of her 'impaired eyesight', the

German licencing authority placed a 150 kph (93 mph) restriction on her licence...

Jac moved back to the UK in 1994 and the Audi was again re-registered, this time in Liverpool as DEM 160X on June 27. However, three years later, in 1997, with the cost of fuel, repairs and maintenance rising and with the large cruiser not being really best-suited to city driving, it was traded in (at an allowance of £1200) at Halls in Birkenhead, in exchange for a Peugeot 106.

Although the deal seemed very sensible both economically and practically, we were

very sad to part with her trusty old bus and often wondered with great fondness whether it had actually gone to Russia or Turkey to be used as a taxi – which is what the dealers had predicted. Subsequently, we could find no trace or record of it anywhere, and (typically) wished we had held-on to the car.

By 2006, we had moved out of the area and on one Sunday in August that year we were out for a walk with our dog along a disused railway line, called the Wirral Way. It was customary for us to drop in to the Pollards Inn in Willaston for a drink before we returned home, passing, as we would, a small used car lot...

Imagine our surprise, when we saw the unmistakable Indiana Rot (red) on the roof of a car that was just being brought out of a warehouse. Tumbling past the other vehicles in the yard, we were delighted to see that the roof was indeed that of Jac's old Audi!

'When she bought it, she hadn't even passed her test – but a friend of a friend had advised her that he knew of a really good car for sale. He was probably right...'



It had just been brought out of storage, to be collected later that day and taken to Turkey to be used as a taxi! We quickly discovered that £170 would settle the storage charges (for 9 years!) and that for another £10, they would tow the car home for us.

When we looked at the V5, it showed that there had been no official change of registered keeper, so technically Jac was still the car's keeper.

Since 2006, we have used the car in the summer time as our daily runabout, spending whatever was needed to get it through its annual MoT. As such, it is largely un-restored and proudly displays the obvious 'patina' that it has accumulated over its 34 years, the last 25 of which in Jac's ownership – of course.

A couple of years ago, we joined Club Audi and have attended and enjoyed a number

of meets and shows both locally and at the NEC. We have appreciated the many kind comments that we have received about the old bus and having agonised for some time as to whether we should keep the car or sell it, we have now decided to start a steady programme of restoration.

As far as we know, there is nothing major to be done. However, there are patches of

rust here and there, the rear offside door needs replacing and some of the panels have faded more than others. The first job then is bodywork and a respray. I was lucky to have found a rear door and two other NOS panels recently, and I have discovered a (limited) availability of other parts in Germany.

Back in the summer, a fellow Club member told me about a 1982 (LHD) C2 which was for sale in Southend. Sadly, the car was beyond saving, but it was a source of some other parts, all of which may be useful as time goes on.

We look forward to continued membership of the Club and we'll be attending as many events and shows as time allows. As far as we know, this is the only LHD C2 Audi 100 on the road in the UK, so hopefully we will soon have it back to its former glory. 🇩🇪

'We have been using the car in the summer time as our daily runabout, spending whatever was needed to get it through its annual MoT...'





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A4 Avant 2.0 TDI SE Technik

2012. 52,000 miles, 1 owner from new. Full dealership history. £30per year road tax. Metallic Lava Grey, black full leather interior, heated front seats, 3-Zone climate control, Concert audio system, single CD, SD card, AUX-IN, colour DIS screen, cruise control, privacy glass, 17-inch 5-spoke alloys, low rolling resistance tyres, Thatcham Cat 1 alarm, mobile telephone prep, Bluetooth, smart wipers, front fog lamps, 12 months warranty, 12 months MoT £14,995



A1 Sportback 1.6 TDI Sport

2012. 35,000 miles, 2 owners from new. Full service history. £0 per year road tax. Metallic Scuba Blue, black cloth interior, air-conditioning, Concert audio system, single CD, SD card, Audi Music Interface, 6.5-inch display, mobile phone prep Bluetooth/voice control, front centre armrest, Thatcham Category 1 alarm, immobiliser, Drivers Information System, front fog lamps, smart wipers, full airbags. 12 months warranty, 12 months MoT £11,995

Also available:

Audi TT Roadster 2.0 TFSI S Tronic 2008, 52,000 miles, Black £10,995
Audi A4 Cabriolet 2.5 TDI S Line 2005, 104,000 miles, Silver £5,495

VW Tiguan S 2.0 TDI BlueMotion Tech 2013, 23,000 miles, Blue £14,995
VW Tiguan Sport 2.0 TDI BlueMotion Tech 2012, 33,000 miles, Black ... £14,995
VW Sharan SE 2.0 TDI CR BlueMotion Tech 2011, 36,000 miles, Grey ... £14,995
VW Golf Cabriolet SE 1.6 TDI BlueMotion Tech 2013, 17,000 miles £12,995
VW Golf SE 1.6 TDI 2013, 28,000 miles, Black, 5-door £12,995
VW Golf GT 2.0 TDI BlueMotion Tech 2012, 42,000 miles, Blue £11,995
VW Golf Match 1.4 TSI 2012, 23,000 miles, Silver, 5-door £11,495
VW Eos SE 2.0 TDI BlueMotion Tech 2011, 49,000 miles, Grey £10,995
VW Golf Plus SE 1.6 TDI 2012, 35,000 miles, Silver £9,495
VW Golf Match 1.6 TDI 2012, 49,000 miles, Black, 5-door, DSG £9,495



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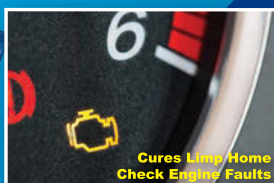
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*B7 A4 owner **Roy Craig** shares some more thoughts, on spare parts, car care, driving habits – good and bad – driving in the winter and road tax...*

IN PREVIOUS reports on my 2007 B7 A4 Audi 2.0 TDI S- line I have always praised the fact that I have had no faults to report on. Oops! Maybe I spoke too soon!

One hot day last August and just three weeks after having the air-con serviced at the annual service, the interior of the car seemed unusually warm; a hand in front of the air outlets definitely didn't feel as cold as I would expect, and after getting it checked out it was diagnosed that the air-conditioning compressor had failed and would need replacing.

The cost for an Audi unit? A staggering £975! The cost of a unit from Allparts (www.allpartsautomotive.co.uk), which was the same make but didn't bear the Audi symbol was £350, so no prizes for guessing which one I chose.

In October last year another fault occurred, and this one puzzled me as I pressed the cruise control button to set it but it would not do so, also the throttle was not responding as I would expect. A few hundred yards later the cruise control light came on and I felt all was OK, only for it to go out a short distance later and, once again, the throttle would not respond. I was just leaving Silverstone circuit and had an hour's



journey to get home so I soldiered on, the strangely unresponsive throttle continued to be intermittent, but it showed up worst when pulling away from stationary. It was then that the penny dropped, it was in limp mode – not something I had experienced before, but had read about somewhere.

I did make it home OK, but when I started the engine the next morning I noticed that the emission warning light was now

illuminated but in yellow.

A diagnosis revealed that the EGR valve had ceased to function and would need replacing. Yes, you've guessed, Audi part fitted £395, same part but supplied by Allparts £255.

It's a shame that Audi has to charge so much for what is really the same part, but after those two problems it is, I'm pleased to say, running like a dream again. →



WITH CHRISTMAS over and now well into another new year we can look forward to spring time, not that we've had much in the way of winter weather yet (in the South of England anyway!)

I wonder how many drivers had their winter tyres fitted in preparation for the colder temperatures? Not such a good idea this time, as we've seen very unseasonably mild weather, in the most part being in double figures, when winter tyres work best at under 7 degrees.

What we have also had is above average rainfall, which puts much greater importance on the need to have good tread depth on your tyres. The legal minimum limit of 1.6 mm is wholly inadequate, certainly for high-speed travel on rain-soaked roads, especially bearing in mind that some EU countries have a legal minimum of 3 mm.

Some reports I have seen from various police forces regarding driver prosecutions for defective and worn tyres are very worrying, as we have to share the roads with these people!

Travelling at 70 mph on a motorway in a heavy downpour with tyres that have treads worn to anywhere near the legal limit would be inadvisable to say the least! Add to that the vast number of drivers who drive at well over that speed and the problem gets even worse.

'Travelling at 70 mph on a motorway in a heavy downpour with tyres that have treads worn to anywhere near the legal limit would be inadvisable to say the least!'

THIS IS ALSO the time of year when cars become really dirty; even worse when temperatures drop and the need for salt spreaders to come out, some owners don't seem to care but for those of us who prefer to drive a clean vehicle it is a telling time.

Hand car washes have sprung up in every conceivable place, with prices as low as £5 for a full wash, and going by the queues I see at some of these a lot of people use them. That's OK if you can bear someone with a jet washer full of some spurious fluid he blasts everywhere, but definitely not for me. I would rather suffer for an hour or so, with freezing cold hands, a bucket and a hose pipe and do it myself, satisfaction afterwards is guaranteed!

In the years since my first entry into a Concours event, which was at the 1982 VW Action, I have used many different car cleaning and polishing products.

I find different-coloured cars call for different products, lighter shades (my first Beetle was a 1965 1200 in Panama beige) are definitely easier to deal with, whereas my next Beetle, a Kase Red 1303, looked much shinier with half the effort.

When it came to owning black cars, it was a different ball game, and for many years we owned a black Mk 1 Golf GTI and a black Polo 1.6 GLX, although the Polo had

metallic paint and so had a coat of lacquer, so sadly missing on the Golf.

Autoglym resin polish had been my favourite for years, but the white powder on the black paint was very off-putting. This led me to change to Turtle Wax Colour Magic, so much better to not have the white powder to contend with. I vowed never to own another black car and when purchasing my new Audi A4 in 2007 the choice was to once again have a beige one. The only one that was available for this model was Dakar beige and I love it, as it doesn't show dust in summer time nor road grime in winter, so I am very pleased.

My choice of shampoo at the moment is Meguiar's Gold Class but I only ever use this to do from the bottom of the windows down and only ever use clean water for the roof and all windows.

I still use Autoglym resin polish from time to time, but I'm sold on using Williams waterless Wash 'n' Wax to polish (not as the name suggests) as it is superbly quick and easy to use and leaves a magnificent shine on both the beige and the silver car, aided by the Carnauba wax in it. It leaves an almost wet look to the paint, wheels, plastic and rubber trim and they all look good with it. I even finish off by running the used cloth of it over the tyres!





'Unless you use the given method of holding the wheel at the 10 to 2 or quarter to 3 position at all times your chances of conducting a quick change of direction or correcting a skid will be severely restricted.'

WHILE ON the subject of driving in adverse conditions I am often amazed at the weird way I see other drivers holding their steering wheels, so bad are most that I am convinced it is one of the main reasons why drivers lose control of their vehicles. To be so flippant with the tool that dictates the direction of the projectile you are in control of beggars belief!

Unless you use the given method of holding the wheel at the 10 to 2 or quarter to 3 position at all times your chances of conducting a quick change of direction or correcting a skid will be severely restricted. My own preference would always be the quarter to 3 (9-3 on a clock face)

On busy motorways in heavy rain and strong winds I have seen drivers using just their fingertips or just their right hand placed at the 10 to 12 or 12 o'clock position, a most odd but sadly an ever increasing sight. Should the vehicle in front of them have a mechanical problem or the driver fall asleep, or the myriads of other issues take place near them, they will

have no chance of reacting to it and will undoubtedly crash!

STILL ON the subject of winter driving, most of us are blessed to be driving cars that now show the external ambient temperature, in most cars at all times in the instrument cluster. When I owned a Mk 1 Golf GTI that had to have this mode selected within the LCD display.

Back in the early 1960's I worked for the Rolls Royce and Bentley dealer Jack Barclay in Battersea and one of the items we used to fit to these wonderful cars was an accessory called an 'Ice-alert'. This consisted of a chrome disc of about three inches in diameter, with a blue central sensor, which was fitted below the front bumper. When the temperature was near to freezing point, a light on the dashboard would be illuminated by the sensor – very high-tech for the period!

Not winter connected, but another item we would regularly fit was a record player, this unit would play 45 rpm vinyl records – how times have changed!



Items we certainly didn't see in those days were the array of things you now see dangling from rear-view mirrors, things like manufactured products such as sweet (or not) smelling Christmas trees to furry dice, prayer beads and other religious ornaments. I've even seen these items advertised on eBay as 'Rear-view mirror decorations'! The accompanying photograph (above) shows such a monstrosity hanging from the mirror of a van parked just down the road from me.

All vehicles with such things should surely all be MoT failures as they do not allow clear uninterrupted vision through the screen within the sweep of the wipers, and this does of course also apply to satnav screens and mobile phone brackets.

I'm sure you've all seen them in the most unbelievable positions, such as directly in the driver's field of vision, and if you notice one of these types driving behind you, be very aware!

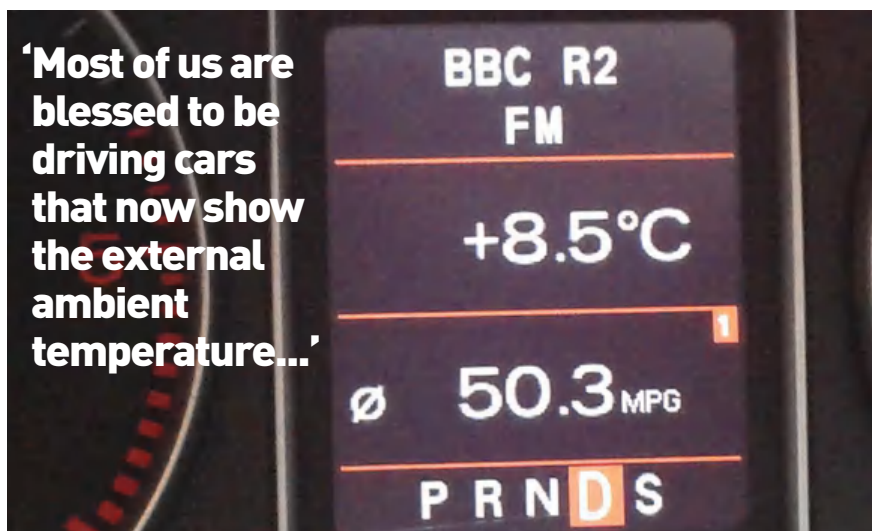
IT IS INTERESTING to see that figures show an increase in untaxed vehicles on the road, hardly surprising as we no longer have to display a Vehicle Excise Duty disc!

Surely the time is right to put this 'tax' onto the cost of fuel. Please don't ask me how much this cost should be as I'm no mathematician, but I just know that it makes sense that the more you drive on the road the more fuel you will consume and the more tax you will pay, likewise the reverse.

The same formula works for emissions too – after all, a car parked on the driveway at home is very clean!

As we all have a space on our windscreen where the tax disc used to reside, I think it should be filled by an 'insurance' disc, instantly showing that a vehicle is insured or not (colour-coded, of course) We won't then have to rely on the possibility of the vehicle being spotted by an ANPR camera.

Other countries do have a similar system in place and I'm sure it would work a lot better than ours, that sees so many uninsured drivers. Oh yes, as a bonus since all drivers will now be paying, it should cut all of our premiums too! 🇧🇪



'Most of us are blessed to be driving cars that now show the external ambient temperature...'

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RBP361	A3 SPORTBACK 5 8.2004>5.2008
RBP362	A3/S3 SPORTBACK 5 6.2008>5.2012
RBP760	A3/S3 SPORTBACK/S-LINE 5 6.2012>
RBP158	A4 4 12.2007>1.2012 (NOT S4)
RBP462	A4 AVANT/S-LINE 9.2004>3.2008 (NOT S4)
RBP159	A4 AVANT/S-LINE 4.2008>1.2012 (NOT S4)
RBP566	A4 AVANT/S-LINE 2.2012>8.2015 (NOT S4/QUATTRO 4x4)
RBP861	A4 AVANT QUATTRO 4X4 2.2012>8.2015 (NOT S-LINE)
RBP341	A6 AVANT/S-LINE/ALLROAD 11.2004>8.2011 (NOT RS/S6)
RBP713	A6 AVANT/S-LINE 9.2011>8.2014 (NOT RS/S6)
RBP847	A6 AVANT/S-LINE 9.2014> (NOT RS/S6)
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SuperPro engine mount kit

SUPERPRO has introduced an uprated engine mount kit for Volkswagen Group vehicles based on the latest MQB platform.

Including upper, lower and pendulum mounts, this SuperPro engine mount kit is a great way to increase driver control and performance, by drastically reducing engine movement, without sacrificing ride quality or inducing NVH.

Until now, even the very best of aftermarket high-performance engine mount kits had brought significant noise, vibration, and harshness into the cabin of the vehicle, and many felt that this was worth living with to overcome the shortcomings of the OEM mounts.

SuperPro has addressed all of these issues with its design, offering high levels of refinement, balanced with optimum performance. To minimise the noise and vibrations in the cabin, SuperPro uses a unique polyurethane formulation that offers more progression than some of its harsher rivals, to keep NVH levels very close to OEM.

The main dynamic advantage of this new kit is that it will mitigate wheel-hop, ensure more accurate and precise gear changes and maximise efficient power transfer without increased cabin noise, or vibration that shakes mirrors and causes interior rattles.

Priced at £599 + VAT the kit fits all engine variants and is a direct replacement for the OEM parts. For more information, visit the website at www.superpro.eu.com

Competition winner

THE LUCKY WINNER of the Cobra JumPack CPP 8000 (worth £79.95) from the competition promoted recently in the December issue of *Audi Driver* magazine and on our website is Alan Johnson from Yately, Hants (owner of a 2001 A4 1.8 SE).

AmD Tuning package for S3 2.0 TFSI quattro



'AmD Tuning also offer free fitting on all Cobra Sport Exhausts...'

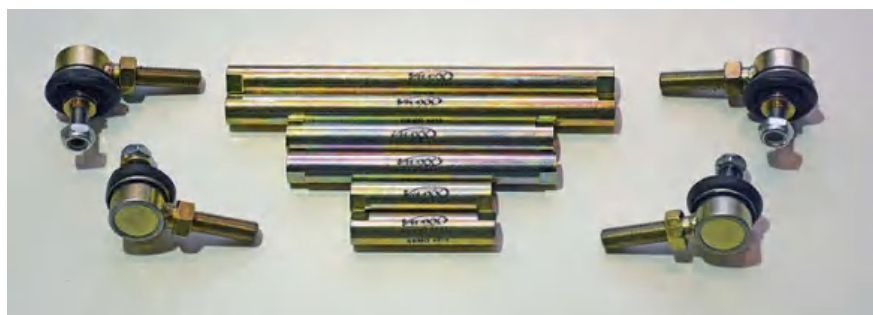
COBRA SPORT has recently developed a range of performance exhausts for the S3 TFSI quattro including de-cat and sports cat front pipe options, as well as fully configurable options for cat-back and turbo-back systems.

Cobra Sport's racing partner, AmD Tuning, has now developed software that is compatible with these exhaust systems to further enhance the gains achieved by the performance exhausts.

When combined with an AmD software re-map the combination creates more power than just the sum of the increases achieved by the exhaust and software added together.

Because the AmD re-map has been designed specifically to work with the Cobra Sport exhaust, you can be sure that everything will work with maximum efficiency and without any fault codes being triggered in error.

AmD Tuning also offer free fitting on all Cobra Sport Exhausts - or, if you prefer to buy by mail-order and fit it yourself, AmD will offer 10 per cent off and free delivery, which can represent a significant saving on a full system. Furthermore, if you buy an AmD Tuning performance re-map at the same time as a Cobra Sport exhaust you can have the re-map at half the usual retail price. Contact AmD Tuning for further details on 01708 861 827 or visit www.amdtuning.com



V-Maxx universal adjustable drop-link kit

V-MAXX UK has launched a set of adjustable anti-roll bar drop links that will fit 95 per cent of applications.

When lowering the suspension of a car, the position of the anti-roll bar is moved from its optimum plane but with this kit, you can set the new links to take into account the precise drop you have just made. Or, if you prefer, you can simply replace your non-adjustable OEM versions on a standard ride-height vehicle.

The kit contains three pairs of different bodies, and four high-precision jointed ends with which to replace the OEM parts, making for an easy swap. Using convenient opposed thread design, these links can easily be adjusted once fitted to allow for real precision during chassis set-up.

All parts are zinc-coated for a long life, and at £43.00 plus VAT for the whole kit, it is a very cost-effective upgrade for any lowered car with either an aftermarket or original anti-roll bar. For more details, visit www.v-maxx.co.uk



Forge Motorsport RS 3 intercooler and RS 6 dump valve

FORGE MOTORSPORT recently unveiled its new intercooler for the RS 3, at Autosport International in January.

Part number FMINT4, the new intercooler for the 8V RS 3 uses a huge bar and plate core with which Forge's engineers were able to knock between 25 and 30°C off the inlet temperatures, which had the knock-on effect of producing more power – claimed to add nearly 20 bhp with no other modifications.

The kit comes complete with all the parts necessary for the installation, including a genuine Audi crash bar modified in-house to accommodate the intercooler, and full-colour fitting instructions.

Also available is Forge's new atmospheric dump valve arrangement for the RS 6, which comprises a pair of Forge's solenoid-operated valves together with a custom-made wiring harness that integrates seamlessly with the OEM electronics and results in absolutely no fault codes, no check engine lights, and no detriment to the performance of the vehicle in any way.

They are engineered to remedy the failure issues experienced with the OEM solenoid valves when their diaphragm may rupture which would effectively result in a boost leak.

Forge's new valve uses full billet alloy construction with a piston-based internal design that is claimed to provide significantly improved reliability over the OEM valves along with lightning fast response.

For more information on Forge Motorsport products, visit www.forgemotorsport.co.uk



Snooper's new Tyre Pilot STP1400

SNOOPER, a leading supplier of GPS satnav and speed detector systems, has launched its latest tyre pressure monitoring system (TPMS), the Tyre Pilot STP1400, which is designed to continuously monitor a car's tyre pressures to improve fuel efficiency, prevent possible accidents and provide better handling and stability.

The wireless tyre pressure device is simple to use and discreet, alerting drivers to any problematic tyre temperature or pressure issues by giving an audible alert when it senses significant changes in tyre pressures and temperatures, usually the first sign of an impending flat tyre or slow puncture. When a driver requires an accurate tyre pressure reading, the STP1400 will give a real-time reading to the nearest 1.5 psi.

The device's simple system will monitor up to four wheels simultaneously, and to save battery life the Tyre Pilot STP1400 sensors will enter sleep-mode when the car is not in motion for a period of time.

Designed to be hard wearing, the device has been extensively tested to guarantee that it will work in the harshest of European weather conditions. It is also easy to install by simply attaching the small TPMS sensors to the tyre valves, plugging the LCD display into a 12-volt power socket and pairing the two.

Priced at £99.99, the Tyre Pilot STP1400 can be purchased from Amazon and www.snooper.co.uk



V-MAXX Sports springs for B8 A4

V-MAXX has released details of its extensive range of springs for the B8 A4 models. With no less than 29 different spring set-ups to suit every Cabriolet, Avant, Saloon, petrol, diesel and quattro variant, these kits can be fitted as a direct replacement for each model's original factory springs and have been designed to work effectively with the OEM dampers – or any quality aftermarket offerings.

The V-MAXX springs draw heavily from the manufacturers' impressive experience of all VW Group models, being wound from the very same steel that V-MAXX uses for its competition springs, pre-stressed to prevent sagging, shot-peened for tempering and then electrostatically powder-coated for a long service life.

Fitting precisely as per the OE parts, these springs can be installed quickly and easily to reduce the ride height of the A4 by between 30 and 35 mm. Using progressive winding technology, each spring offers a softer, more compliant area for normal road use, including commuting and low-speed driving, but with a stiffer section which is brought into play to resist body roll when the car is cornered more aggressively. Each kit comes with full TÜV certification. For more information, visit the website at www.v-maxx.co.uk





Laser Tools Coil pack puller

WITH LONG-LIFE service schedules and modern Volkswagen Group petrol engines running very cleanly, spark plugs are rarely changed. Because they sit deep down between the camshafts, access is difficult, and the tight-fitting rubber boot won't easily come apart from the spark plug. When the plugs do need to be changed, along with their coil-on-plug systems, after as much as 40,000 miles the coil packs often don't want to budge!

The answer is this ignition coil puller from Laser Tools (part number 6298). The coil pack securing screw is removed and the coil puller is inserted into the screw hole. Turn the knob and the shaft expands to firmly grip the coil pack, which can then be steadily removed without any damage.

Equivalent to the OEM T10530, the Laser tool fits the Audi A3, VW Golf, SEAT Leon and Skoda Octavia, from 2013 onwards, running the 4-cylinder 1.2/1.4-litre direct-injection engine, and 4-cylinder direct-injection 2.0-litre 16-valve turbocharged chain-drive Generation 3 engines.

It's typically priced at £55.88 (plus VAT) and you can find more details at <http://www.lasertools.co.uk>



Car Shades

DESIGNED AND manufactured in the UK, Car Shades are the world's largest range of tailored-fit vehicle privacy shades. Available for more than 400 vehicles, their shades give 100 per cent window coverage of rear passenger, load area and tailgate windows.

Sunny days make for a great summer but can easily turn your car into a sauna on four wheels. The shades will considerably reduce the cabin temperature by blocking out sunlight.

Offering up to 95 per cent passenger protection from UV rays, Car Shades will also help protect children, pets and other passengers from heat and sunburns, as well as stopping insects from entering the car, making their journey safer and more comfortable. Wind tested, the Car Shades will remain in place even while driving with the rear windows down.

Car Shades also add a darkened effect to your windows, making it more difficult for thieves to see what's inside your vehicle. They will also prevent dazzling from the headlights of following traffic at night or blinding sunlight during the day, especially in Autumn and Winter when the sun is low in the sky.

Supplied with simple fitting instructions, the whole set can be installed in less than two minutes thanks to an easy 'Clip Ease' technology. They are also quick to remove; simply unclip the shades and place them in their smart, protective zip-up bag where they store flat and take very little room.

More efficient than suction-cup window shades, far cheaper than privacy glass, Car Shades may well be the perfect solution. For more information about Car Shades visit www.carshades.co.uk



Fire Pal JE-50 portable fire extinguisher

FOR ANYONE wanting to carry a compact and yet highly efficient portable fire extinguisher, this Fire Pal JE-50 is certainly worthy of consideration. Described as 'the world's smallest portable fire extinguisher', the JE-50 is light and compact, easy to operate and requires no annual inspection and maintenance.

Its new nano-particle extinguishing agent has a high efficiency while the agent is also non-toxic, harmless, environmentally-friendly, safe and reliable, with only a slight residue remaining after discharge.

Claimed to be a perfect substitute for traditional dry powder or foam units, the JE-50 can extinguish flammable liquid, gas and electric fires in a wide range of situations. With an effective range of 3 metres and minimum discharge time of 8 seconds, you simply pull out the manual safety ring in the base of the unit and press the start button to commence discharge at the base of the fire.

Just 242 mm (9.5 inches) long and 53 mm (2.3 inches) in diameter, weighing around 480-500g, it is ideal to keep in the glovebox or door pocket of a car. The JE-50 portable fire extinguisher can operate normally at an ambient temperature ranging from -40 degree to +75°C and it has a service life of 4 years.

For further technical information visit www.westpeace.com or see the video on YouTube: https://www.youtube.com/watch?v=p4SmU_9_s-c

Priced at £39.99, we bought ours at the recent Autosport International event from UK importer MAD Suspension, Tel: 01386 882 997 E: sales@mad-suspension.co.uk

Eibach rear camber arms



EIBACH has recently introduced a fixed length (not adjustable) rear camber arm that offers an additional +2.50° of camber. It is designed to counteract the issues that can arise with the excessively increased negative camber that can occur when lowering the multi-link rear suspension.

This fixed length arm offers a cost-effective solution, simply replacing the OE arm with Eibach's slightly longer arm and then dialling in the correct camber with the standard adjuster in order to improve tyre wear and restore handling and ride quality.

The forged arm has an x-Axis™ cross-axis ball-joint on one end and a high durometer bonded rubber bushing on the other end, to maintain a factory standard of ride quality and compliance. The arm also features the provision to receive the OE wire harness.

Priced at £172.35 + VAT for the pair, the Eibach positive camber arms fit all Series 2 models with the multi-link rear axle, including A3, S3 and RS 3, TT, TTS and TT RS as well as Mk 5/6 VW Golf, Beetle, Jetta, Tiguan, Passat, CC, Touran, Scirocco and SEAT Leon and Skoda Octavia. For further details visit the website at www.eibach.com or call 01455 285 851.



Stoplock

ACCORDING TO leading automotive brand distributor Saxon Brands, developments in vehicle technology and a rise in vehicle crime figures mean that owners need to pay extra attention to car security this winter.

Figures released by the leading independent crime data platform UKCrimeStats, identify that, while overall UK crime has reduced by more than 3 per cent, vehicle crimes have increased by 1.46 per cent and so the security of your car is ever more crucial.

With thieves bypassing the sophisticated electronic security systems, and cloning your car key in just seconds, many vehicle owners are taking the retro approach to security. Considered by some as old-fashioned and out-of-date, the traditional Stoplock is making a comeback; indeed Stoplock reports that UK sales have increased by 27 per cent this year and a huge 72 per cent over the past two years. Clearly, drivers are taking practical steps to prevent their cars from being stolen.

Kieron Sheridan from UK Stoplock distributor, Saxon Brands said 'The trusty Stoplock, which was popular in the late 1980s and early '90s, had been thought redundant in a world of on-board computers and vehicle security systems. It's therefore great to see this relatively simple vehicle security system regaining its place at the forefront of vehicle security'.

Indeed, over the years, Stoplock has continued to receive category 3 approval by Thatcham Research, which assesses vehicle security systems for car insurers. Thatcham recommends aftermarket mechanical immobilisers, because they act as both a visual and physical deterrent.

With prices ranging from £29.99 to £49.99, the complete range of Stoplock products are easy to fit, highly visible, have been 'fully attack-tested' and come with a 10-year guarantee.

Stoplock products are available from Saxon (www.saxon-brands.com) and all good automotive retailers. For more information contact Saxon on 01488 689 400 or e-mail info@saxon-brands.com

BOOK REVIEW

Defend your licence: Beat road traffic offences

by Andrea Clegg

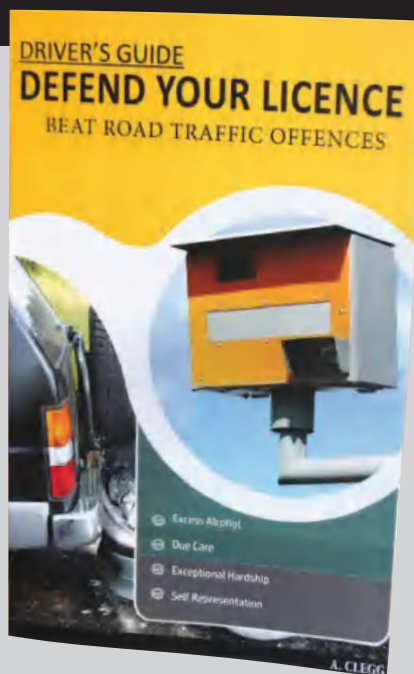
'Expert legal advice and insight that will help every motorist...'

DESCRIBED as 'a practical and helpful guide for drivers, combining accurate law with expert tips on how to deal with motoring related offences', Andrea Clegg – an experienced road traffic defence solicitor – has compiled a book full of expert legal advice and insight that will help every motorist equip themselves with the knowledge they need to represent themselves, and safeguard their driving licence, in almost any case.

Chapters cover courses, fixed penalty tickets, insurance pitfalls, step-by-step guides to representing yourself, more serious offences such as drink driving, and dangerous driving which could result in lengthy disqualification, imprisonment or an unlimited fine.

Andrea Clegg demystifies the legal terminology surrounding motoring law, providing a comprehensive yet accessible route through the legal system while highlighting the importance of improving our own diligence and safety on the road, in particular those who are high-mileage motorists and young or inexperienced drivers.

Defend Your Licence: Beat Road Traffic Offences, by Andrea Clegg, is published by Clink Street Publishing, RRP £9.99 paperback, £3.99 ebook, and is available from online retailers including amazon.co.uk and to order from all good bookstores. For more information, visit www.roadtrafficdefencelawyers.co.uk



SPECIAL OFFER

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SP DIAGNOSTICS have added 2015 coverage to their combined Service Light Reset and Electronic Park Brake Tool, which covers all 16-pin Volkswagen, Audi, SEAT and Skoda models.

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Additions to this coverage include Mk 7 Golf, Skoda Octavia 3, Superb B8, SEAT Alhambra 7N and Leon 5F platforms, as well as 2015 model-year extension to existing coverage and it is updateable (return it to SP Diagnostics).

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Normally listed at £149.00 the SP 1459-9000 is currently available direct from SP Diagnostics at the special offer price of only £89.95 including VAT.

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Global View **ELAINE CATTON**

CAR MAKERS spend a lot of time gazing into crystal balls and ruminating about the future. This is hardly surprising, given that it takes years from initial concepts being generated to finally delivering production vehicles to customers.

But it goes a good deal further into the future than that. Car makers have to ensure they remain relevant and are not usurped by the fickle masses deciding that individual mobility simply doesn't do it for them anymore.

One of the major factors shaping the future of how we travel from A to B is the rapidly increasing pace of urbanisation around the world. If you live in a tranquil rural backwater (as I do), it might not feel like it, but UN forecasts predict that by 2030, around 60 per cent of the world's population will live in gi-normous, sprawling cities (oh joy!). And other sources estimate that 86 per cent of the developed world will be living in cities by 2050. The problem that car makers have with that is – in a word – space. The difficulty with individual mobility as it stands is that it cars take up inordinate amounts of space, whether they're moving or standing still. And, in the megacities of the world, they do a LOT of standing still – be it parked or in endless congestion.

The fact is that many young people living in urban areas don't even bother learning to drive these days – owning and driving a car is simply too much expense and aggravation and, for many youngsters, cars are no longer the aspirational consumer product they were for us and our parents. Car makers are aware of this, and are understandably keen to come up with ways of addressing this in a manner that keeps them in business and competitive.

The Audi Urban Future Initiative (AUFU) has been in existence since 2010, with the goal of ensuring that Audi is involved in and shaping the debate. Within the scope of AUFU, the company is working on a project in the Boston metropolitan area to examine how piloted parking could free up space in and around cities.

In time-honoured fashion, a former industrial wasteland is currently in the process of being transformed into a 'mixed-use' waterfront development called Assembly Row, comprising apartments, offices, shops and a hotel (sound familiar?). However, and here's the crunch, around 40 per cent of the surface area has to be reserved for parking, at a cost of \$25,000 per space. According to the development company, this is 'one of the biggest hurdles for the commercial viability of our development'.


This is where Audi's piloted parking technologies come into play. According to the company, if plans for Assembly Row were to include a parking structure for self-parking cars, it could theoretically save around 60 per cent of the project's surface area. The parking surface required decreases by more than two square metres per car, the driving lanes are narrower, there is no need for staircases and elevators and the vehicles

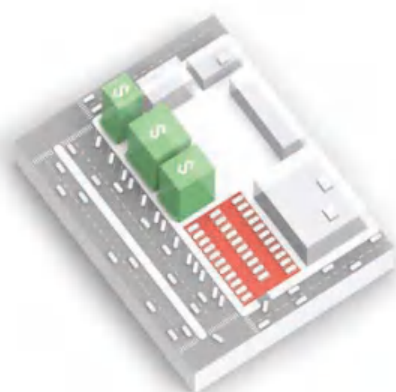
can be parked directly behind one another in multiple rows. Audi's Head of Advance Development Driver Assistance Systems, Miklós Kiss asserts, 'In the most extreme case, more than 80 per cent of the surface area could be removed from a parking structure designed from scratch for piloted parking.'

As part of its grand vision of the future, Audi is not only working on the technologies that facilitate self-driving and self-parking vehicles, but also on what it refers to as 'intelligent mobility services' that envisage people no longer owning their vehicles, but sharing them with others. The theory around the service known as 'Audi Shared Fleet' is that cars could be used privately by residents morning and evening for, say, commuting, with business customers using the fleet during the working day. Statistics show that average car usage is just five per cent, with parking therefore accounting for 95 per cent (are you getting all this?). By playing around with fleet management, the theory would be to switch this proportion and free up even more parking space – presumably for building even more (highly profitable) apartments and cramming even more city-dwellers into every single square metre.

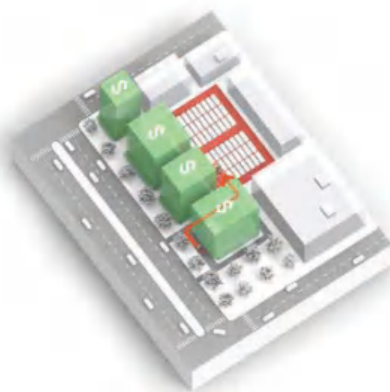
But what a colossal leap in car culture that would be! I can get my head around the notion of self-parking cars. Americans have more-or-less been doing that for decades (albeit in human form), by handing their vehicles over to valet parking services at shops, restaurants and theatres. However, having shared access to a fleet of cars, rather than my own personal tin box? I personally am quite minimalist when it comes to the possessions I leave in my car for convenience, by which I mean re-usable shopping bags, a blanket for protecting the load floor from dog hair, maybe a pair of sunglasses in the summertime (she says optimistically). But there are folks out there for whom their car is an extension of their household, packed with all manner of clobber ranging from spare clothing and sports gear to assorted wobbly ornaments, kids' toys and a well-stocked 'emergency' snack bar.

This also flies in the face of the popular trend towards personalising a car to within an inch of its existence. You can go into an Audi 'brand experience' or dealership and specify your car to the nth degree. Where does that leave you if you buy a smart city apartment and sign up for the neighbourhood car-sharing scheme? Yes, you can book a city car for your weekday use and an SUV for the weekend, or maybe a multi-seater for when the family comes to visit, but what about that very particular shade of pearlescent green you liked so much? Or the leather/Alcantara upholstery combo?

Ah wait, I see the solution now. You use the humdrum, cookie-cutter, shared car for the daily routine and buy yourself a second, individualised car that truly expresses your inner self and inside which you can leave all manner of personal accoutrements. All you have to do now is find somewhere suitable to park it for 99 per cent of the time ... 



Without Piloted Parking Technology



With Piloted Parking Technology

“In the most extreme case, more than 80 per cent of the surface area could be removed from a parking structure designed from scratch for piloted parking.”

Miklós Kiss, Audi's Head of Advance Development Driver Assistance Systems,

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Oblique View **ROBERT COULDWELL**

Jaguar XF versus Audi A6

ORIGINALLY launched in 2008, the Jaguar XF has been highly successful, mixing it with the previously dominating Audi A6, BMW 7-Series and Mercedes E Class.

Not content to rest on its laurels, though, Jaguar has created a completely new XF which is lighter, more efficient and packed with technology.

Considering it is a much smaller company than any of the German premium brands, Jaguar has done a remarkable job in making the new XF even better than its competitors, particularly in respect of quietness, refinement and handling fluidity.

The aluminium-intensive architecture is responsible for weight saving, around 80 kg lighter than the competition and, with the 2.0-litre diesel engine, the lowest claimed CO₂ emissions of any non-hybrid model in the segment: 104 g/km of CO₂ and 70.6 mpg combined fuel economy.

The exterior design changes also contribute to lower emissions and better fuel economy with an exceptional aerodynamic efficiency: Cd 0.26. The changes also increase interior room, segment-leading for rear seat space: row-two occupants gain 15 mm more legroom, 24 mm more knee room and 27 mm more headroom.

The all-new 10.2-inch touchscreen infotainment system, InControl Touch Pro, offers door-to-door navigation, seamless iOS and Android connectivity and 17-speaker, 825W Meridian digital surround sound while a reconfigurable 12.3-inch TFT instrument cluster features four visual themes and full-screen navigation display.

Powertrains range from the new four-cylinder 163 PS Ingenium diesel and 6-speed manual to 380 PS V6 supercharged petrol and 8-speed automatic transmission. In between is the 3.0 TDV6 tested here, which despite being uprated by 25 PS and 100 Nm of torque actually has better economy and lower emissions than its predecessor. With a claimed 51.4 mpg and 144 g/km on the combined cycle instead of 44.8 and 169, this efficiency improvement is most impressive.

The double-wishbone and Integral Link suspension deliver exceptional ride comfort, handling, and unrivalled refinement and there is an All-Surface Progress Control enabling smooth, effortless drive-away on low-friction surfaces such as snow and ice; all the driver has to do is steer.

The all-new XF offers a host of additional technology including full-LED headlights, a laser head-up display which delivers high-contrast colour images, autonomous emergency braking, adaptive cruise control with queue-assist, lane keep-assist, intelligent speed limiter and semi-automated parking.

When I first drove the Audi A6 BiTDI with its 320 PS, I was blown away by its power, silky smoothness, quietness and refinement. I wouldn't then have believed that any other manufacturer could do it better until, a few weeks ago, I drove Jaguar's take on the twin-turbo, six-cylinder diesel approach. Wow, it is just amazing that a small manufacturer like Jaguar Land Rover can create such a superb engine. Despite coming after the Audi's twin-turbo, Jaguar, for some reason, has limited the power output to 300 PS against

Audi's 320. This difference shows up in the specification sheets with the Audi's 0-62 mph figure 1.2 seconds quicker at an impressive 5.0 seconds, but this doesn't show up on the road, the XF's extra torque coming through in cross-country driving.

Jaguar knew that it would be difficult to make a better executive interior than BMW, Mercedes and particularly Audi and so tried to do something different. The first time you enter an XF and start the engine you may be impressed with the air-conditioning vents that automatically open and the gear control knob which rises eerily from the centre control but these are gimmicks involving motors which will surely fail at some point when the car is out of warranty. They add nothing to the useability or enjoyment of the vehicle apart from impressing relatives and friends the first time they travel with you.

Don't get me wrong, the interior of the Jaguar XF is a very pleasant place in which to be a driver or passenger, with extremely comfortable seats and all the controls where they should be. The driving position is perfect, with a full range of seat adjustments. In the final analysis Jaguar hasn't quite reached Audi's interior standards of fit and finish. One day, one of the premium manufacturers will shade Audi but it hasn't happened yet.

Coming from behind, Jaguar has made a major step in the premium market on depreciation: the Jaguar XF retains a larger percentage of its new price after three years and 60,000 miles, the standard fleet measure, than its German and Japanese competitors. As leasing and private contract purchase rates depend on depreciation, this will help the XF to grow market share. Also the XF will suffer lower Benefit-in-Kind tax rates than its rivals.

The only disadvantage of the XF is its lack of four-wheel drive, although this is only apparent in slippery conditions. In the dry the rear-wheel drive Jaguar offers more responsive handling and steering than the A6 but unfortunately we have a lot of rain in this country. A four-wheel-drive XF is, thankfully, on the way. 🇩🇪



	Audi A6 3.0 Bi-TDI quattro S line	Jaguar XF 3.0 TDV6 S 300 PS
OTR Price	£48,990	£49,945
Engine	2967 cc, 6-cyl	2993 cc, 6-cyl
Max power	320 PS	300 PS
Max torque	650 Nm	700 Nm
0-62 mph	5.0 sec	6.2 sec
Top speed	155 mph*	155 mph*
Combined mpg	46.3	51.4
CO ₂	159 g/km	144 g/km
Driven wheels	4	Rear

* Electronically limited

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FOR SALE



AUDI 80 SPORT 1985 (February) 113000 miles, one owner from new. Zermatt silver, with factory extras of sunroof, power steering, and front fog lights. Regularly serviced and always kept in well ventilated garage – since 1999 I doubt it's got wet more than half a dozen times! Waxoyled regularly during its early life, more occasionally since. Immobiliser fitted. All original keys available. Front brakes upgraded to 256 mm. Boge Pro Sprint dampers with slightly lower Eibach springs. New rad, stat, and four new quality Goodyear tyres just fitted. Driver's seat is still OK (it does have a very small amount of wear, approx. 1-inch dia, on the bottom of the backrest bolster). Wheels would benefit from refurb. In 2008 AM Cars undertook refurb work, some paint, all the front suspension / steering / subframe / arb bushes, gearbox mountings. There is a pile of receipts, papers, documents, including the original invoice. It's not spotless, but it has been well cared for. £2,795 ono. The car is located in Bracknell, Berks. Contact 01344 455 373 / 07764 613 214 or e-mail: chris.l.grant@btinternet.com I can also e-mail / allow access to photos taken in 2010 and published in Audi Driver, together with more comprehensive details.



A3 S LINE 170 PS 2.0 TDI diesel with 6-speed manual gearbox. Full service history. 77,000 miles. Bose hi-fi system. 18-inch alloys. Cambelt and water pump replaced October 2015. MoT due June 2016. Bodywork and interior in excellent condition. One previous owner. More photos available on request. Car is located near Caterham, Surrey. £7,800 ono. Contact Tom at tjr@hotmail.co.uk Tel: 07811 805 829

AUDI A3 REAR LIGHTS pair, to fit 3-door 2003 to 2009. Unmarked, as-new condition, complete with bulbs, £25 each. Pics available. Postage no problem. Tel: 07950 997 713 (near Canterbury)

AUDI DRIVER and VOLKSWAGEN DRIVER magazines. I have a large collection which I would like to sell. I am open to offers, but the buyer will have to collect from Hadleigh, Essex. E-mail: rglenister@btinternet.com

WINTER TYRES FOR AUDI A1 195/50/R16 88H, 15 months old, all rims undamaged, tyres all good, £400. Tel: Colin 07767 353 727 or email colinporter03@gmail.com



GENUINE AUDI WINTER WHEEL AND TYRE PACKAGE Set of four, as supplied for 8P A3 (2003-2012) but will also fit Mk 6 / 7 Golf and current shape A3 too. Twin 5-spoke 'Calera' alloy wheels made in Austria (Part No. 8P4 071 498 666, ET54, PCD 5x112) fitted with Bridgestone Blizzak winter tyres in 225/40-18, with between 6 and 7 mm of tread remaining. Supplied with genuine Audi wheel bags in which they were stored at the local Audi Centre over the summer. Centre caps also included. One very minor mark to one spoke on one wheel, genuinely just in the paint not metal. These wheels were used by a Peak District GP on his 2011 S3 to ensure he could get to and from work whatever the weather. We bought his S3 and paid extra to have these too. They fit all A3 and S3 but do not clear the brakes on RS3 unfortunately. Collect from our premises near J3 M42 (Birmingham). Andrew Chapple, Volkswizard Tel: 01564 330 495 / 07968 580 801.



AUDI A8 7.5 x 16-inch Winter wheels + tyres. The wheels have been finished in a chrome powdercoat and are in great condition. One wheel has a chip on the rim and another has some of the powdercoat rubbed off the rear of the rim, but all wheels run straight and true with no cracks and have never been repaired. All centre caps present but one will need replaced. 5 x 112 mm PCD, ET45. Two are fitted with 195/40-16 Falkens which have only done approx 500 miles, two with 195/45-16 Pirellis with 4-5 mm tread. £385 ono + shipping at extra cost. Tel: 07827 916 016 E: simon@smcculloch5.wanadoo.co.uk (East Lothian).



WINTER WHEELS/TYRES I have sold my Audi 80 so have no use for the set of four 10-spoke (4 x 108 mm PCD) alloy wheels I've got, fitted with 205/60-15 Vredestein Snowtrac 3 tyres, all with good tread. The rims are in respectable condition and come with 3 centre caps. £150 plus postage. Call 07854 996 546 (Taunton Somerset)



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AUDI A1 FRONT CENTRE ARMREST complete with mounting bracket and all fixings. As new and easy to fit. £60 ono. Contact Graham Tel: 01621 855 897 or e-mail: grahamscavoy@hotmail.co.uk (Essex)

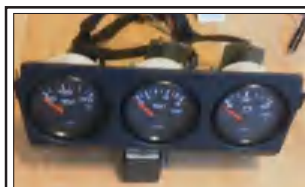
VW RCD500 6-DISC CD / radio head unit with black buttons. Golf Mk 5 / Jetta 1K / Touran 1T / Scirocco 1K8 / Passat B6. Brand-new genuine VW unit in the box with radio code. VW Part numbers - 1K0057195AX / 1K0035195A. £120 As above but with silver buttons / dials. VW Part numbers - 5M0057195BX / 5M0035195B. £140 6-disc Single DIN CD changer Golf Mk 4 / Bora, Passat B5 2001 - 2005, Lupo, Polo 6N2 2000 - 2002. Brand-new genuine VW unit still in the box. VW Part numbers - 3B7057110X / 3B7035110. £89.00 These are all available in limited numbers, until stocks are exhausted. All prices include VAT at 20 per cent and UK standard delivery. Tel: 01531 640 800 and mention Volkswagen Driver / Audi Driver to get these special prices.

AUDI A6 ULTRA 192 bhp TDI diesel, 2014, 3000 miles only by careful elderly driver. Present red with black leather heated lumbar support seats, electric heated folding mirrors, reversing camera, telephone preparation and technology pack. Twin satellite navigation system. Road fund licence £30 per year. Very economical to run, kept in a centrally heated garage, totally as new. £25,950 Firm. Tel: 01299 832 777 (Worcestershire)

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2001 AUDI A2 1.2 TDI Automatic, Island green. Very rare, surely a future classic? Never officially imported to UK. 158,000 miles and has a UK MoT and V5 registration document. One owner for the majority of its life from 2001-2015! UK registered and the relevant modifications for UK use. This is the high spec 1.2, includes climate control, power steering and remote central locking (standard 3L version did not get these features). Also has the optional Island green paint and Twist interior, leather controls pack and the false floor in the boot. Although clearly cherished by the previous owner, the car had covered 158,000 miles and has had some TLC and preventative maintenance: transmission work - a new clutch actuator, accumulator and link rod, gear selector gasket kit and various other seals. Transmission subsequently re-calibrated - a check that is required at every service interval on the 1.2 - resulting in lovely smooth progress through the gears. Driver Information Screen had pixilated so a replacement screen was fitted. UK dial set, so that the speedo reads in mph as well as kph. Instrument cluster re-coded to English and imperial measurements. Timing belt kit and water pump replaced, along with full vehicle service including filters and fluids. Front brakes renewed and rear aluminium drums serviced. Audi A2 1.2 TDI LHD is recognised by UK insurance bureau so insurance is straightforward. Also included is a spare magnesium wheel/tyre, something that none of them came with (fits perfectly underneath the false floor in the boot of the A2. The 1.2 TDI A2 is quite simply an engineering masterpiece with a Cd of just 0.25 (still remarkable) and a reduced frontal area (slimmed wheelarches). It is known as the '3L car' as it can return 100 km per 3 litres of fuel (94.2 mpg)! Its lightweight construction, superior aerodynamics and transmission gearing make the car a joy to drive. Official top speed 104 mph, but actually faster than the 1.4 TDI, due to the different gearing. It is a born motorway cruiser. Along with free road tax, great reliability and excellent build quality they make a lot of sense for UK market. Asking £5,250. Tel: 01538 807 708, e-mail: rob@womautomotive.co.uk (Staffordshire)



AUDI 80 SPORT/COUPE S2 VDO gauges complete with wiring loom and sender. Mk 2 VW Golf centre console - very rare item and genuine factory part. In mint condition. Ideal for Mk 1, 2, 3 VW Golf etc. £200 no offers. Buyer collects, will not post. Tel: 07867 840 819 (West Midlands)

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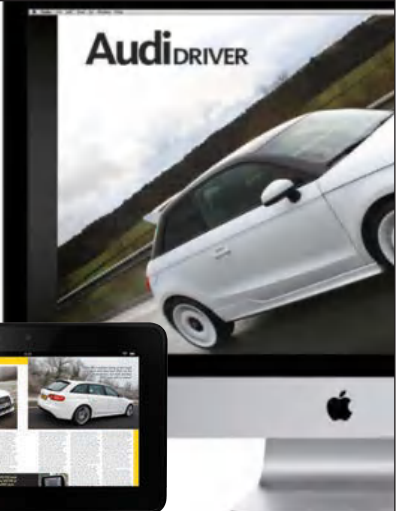

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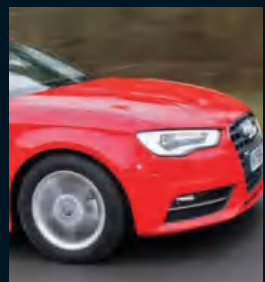
A1 1.0 TFSI SE	Dec '15	A4 (3) 2.0T FSI quattro DTM	Nov '05	A6 Avant 2.5 TDI	Nov/Dec '98	S6 Avant quattro V10	Jul '08
A1 1.2 TFSI SE	Mar '11	A4 (3) 2.0 TFSI quattro	May '08	A6 Avant 2.5 TDI quattro	Jan/Feb '00	S7 quattro	Jan '13
A1 1.4 TFSI Sport	Mar '11	A4 (5) 2.0 TDI 120 PS	Dec '09	A6 Avant 2.5 TDI quattro SE	Nov/Dec '01	S8 quattro	Mar/Apr '00
A1 1.4 TFSI (122) S line	Jan '13	A4 (5) 2.0 TDI 136 PS	Apr '10	A6 Avant 2.7 TDI SE	Jun '05	S8 (V10)	Jan '09
A1 1.4 TFSI (185) S line	Mar '12	A4 (5) 2.0 TDI 170	Apr '09	A6 Avant 2.7 TDI	Jul '06	S8 (V8 bi-turbo)	Dec '12
A1 1.6 TDI Sport	Dec '11	A4 (6) 2.0 TDI SE Multitronic	Aug '14	A6 Avant 2.7T quattro	Aug '02	RS Q3	Apr '14
A1 2.0 TDI S line	Aug '12	A4 (6) 2.0 TDI SE Technik ultra	Dec '14	A6 Avant 3.0 TDI SE	Apr '12	RS 3 Sportback	Feb '12
A1 Sportback 1.4 TFSI S tronic	Nov '13	A4 (6) 2.0 TDI quattro S line 177 PS	June '15	A6 Avant 3.0 TDI quattro	May '15	RS 3 Sportback (MQB)	Nov '15
A1 Sportback 1.6 TDI Sport	Mar '13	A4 (3) 2.5 TDI Multitronic	Aug '05	A6 Avant 3.2 FSI quattro	Apr '06	RS 4 quattro Saloon	May '06
A1 Sportback 2.0 TDI S line	Jan '15	A4 (2) 2.5 TDI quattro Sport	Mar '04	A4 allroad quattro 2.0 TDI	Aug '09	RS 4 quattro Cabriolet	Sep '06
A2 1.4 SE	Jan/Feb '01	A4 (4) 2.7 TDI Multitronic	Jul '08	A4 allroad quattro 2.0 TDI (177 PS)	Jun '12	RS 4 Avant quattro	Feb '13
A2 1.4 TDI	Feb '05	A4 (2) 3.0 manual	Apr '02	A4 allroad quattro 2.0 TDI (177 PS)	June '15	RS 5 quattro	Dec '10
A2 1.4 SE TDI	May/June '01	A4 (3) 3.0 TDI quattro SE	Dec '05	A4 allroad quattro 3.0 TDI S tronic	Nov '09	RS 6 Avant quattro	Jan '03
A2 1.6 FSI	Mar '04	A4 (3) 3.2 quattro	Jan '08	A4 allroad quattro 3.0 TDI S tronic	Feb '11	RS 6 Avant quattro	Sep '04
A2 1.6 FSI Sport	Dec '02	A4 Avant (5) 1.8 TFSI	Oct '08	allroad quattro 2.5 TDI	Jan/Feb '01	RS 6 quattro Plus Avant	Feb '05
A3 1.6	Mar/Apr '99	A4 Avant (2) 1.9 TDI 130 SE	J/F '02	allroad quattro 2.5 TDI	Nov/Dec '00	RS 6 quattro Saloon (2)	Dec '09
A3 1.6 FSI	June '06	A4 Avant (2) 2.0 SE Multitronic	Aug '02	allroad quattro 2.7T	Jan '04	RS 6 quattro Avant (2)	Sep '08
A3 1.6 FSI	Mar '07	A4 Avant (6) 2.0 TDI 177 PS	Jan '11	allroad quattro V8 4.2	Jul '04	RS 7	Feb '14
A3 1.6 Sport	Mar '01	A4 Avant (6) 2.0 TDI quattro	Sep '12	allroad quattro V8 4.2	Jul '04		Mar '14
A3 1.8 SE	Jan/Feb '99	A4 Avant (6) 2.0 TDI quattro	Sep '13	allroad quattro 3.2 FSI	Dec '06		Apr '05
A3 1.8 SE, 4-door	Nov/Dec '01	A4 Avant (3) 2.0 TDI Multitronic	Oct '05	allroad quattro 3.0 TDI	Aug '07	TT Coupé 1.8T (180)	Sep/Oct '99
A3 1.8 SE automatic, 4-door	Sep/Oct '00	A4 Avant (2) 2.4 SE Multitronic	May '04	A6 allroad quattro 2.7 TDI	Oct '10	TT Coupé 1.8T quattro (225)	Jan/Feb '00
A3 1.8T Sport	Mar/Apr '99	A4 Avant (2) 2.5 TDI quattro	Sep '03	A6 allroad quattro 3.0 TDI	Sep '12	TT Coupé 1.8T quattro (225)	Mar '03
A3 1.8T Sport	Sep '02	A4 Avant (5) 3.0 TDI quattro	Aug '06	A6 allroad quattro 3.0 TDI (245 PS)	Aug '14	TT Coupé quattro Sport	Jul '05
A3 1.8T quattro Sport	Mar '02	A4 Cabriolet 1.8T	Nov '04	A6 allroad quattro 3.0 BITDI	Sep '12	TT Coupé quattro Sport	Feb '06
A3 1.9 TDI SE	Jul/Aug '98	A4 Cabriolet 1.8T Sport	Aug '03	A7 Sportback 3.0 TDI quattro	Mar '11	TT Coupé 3.2 – DSG	Jun '04
A3 1.9 TDI Sport, 4-door	May/Jun '00	A4 Cabriolet 2.0T	May '06	A7 Sportback 3.0 TDI quattro	Feb '15	TT Coupé 3.2 – DSG	Mar '05
A3 1.9 TDI quattro Sport	May/Jun '02	A4 Cabriolet 2.4 Multitronic	Nov '03	A7 Sportback 3.0 Bi-TDI quattro	Sep '14	TT Coupé (2) 2.0 TDI quattro 170	May '13
A3 (2) 1.2 TFSI	Sep '11	A4 Cabriolet 2.5 TDI Multitronic	Nov '03	A7 Sportback 3.0 TFSI quattro	Jun '11	TT Coupé (2) 2.0 TFSI	Jul '07
A3 (2) 1.6 TDI	Jun '10		Dec '02			TT Coupé (2) 2.0 TFSI quattro	Sep '09
A3 (2) 1.4 TFSI	Jun '08	A4 Cabriolet 3.0 Multitronic	Dec '02	A8 2.8	Nov/Dec '98	TT Coupé (2) 2.0 TFSI quattro (211)	Feb '11
A3 (2) 2.0 FSI	Feb '04	A4 Cabriolet 3.0 TDI	Apr '07	A8 3.0 TFSI quattro SE	Nov '12	TT Coupé (2) 3.2	Feb '07
A3 (2) 2.0 TFSI	Oct '10			A8 3.0 TDI quattro	Dec '04	TT Coupé (3) 2.0 TDI ultra	Mar '15
A3 (2) 2.0 TDI SE	Apr '04	A5 1.8 TFSI S line	Aug '12	A8 3.0 TDI quattro SE	Oct '08	TT Coupé (3) 2.0 TFSI	Mar '15
A3 (2) 2.0 TDI Sport	Feb '09	A5 2.0 TFSI	May '09	A8 3.0 TDI quattro SE	Apr '12	TT Roadster 150	Oct '03
A3 (2) 2.0 TDI quattro S line	Aug '05	A5 3.0 TDI quattro	Jun '09	A8 SE Executive 3.0 TDI quattro	Oct '15	TT Roadster 1.8T quattro (180)	Mar/Apr '00
A3 (2) 2.0 TDI (170) quattro Sport	Jun '07	A5 3.0 TDI quattro	May '13	A8 3.2	Oct '15	TT Roadster 1.8T quattro (180)	Nov '02
A3 (2) 3.2 quattro	Aug '04	A5 3.2 FSI	Dec '14	A8 3.7	Sep/Oct '98	TT Roadster 1.8T quattro (225)	Sep/Oct '01
A3 (3) 1.4 TFSI	Dec '12	A5 Cabriolet 2.0 TFSI	Oct '11	A8 3.7 quattro Sport	Jul/Aug '99	TT Roadster 1.8T quattro (225)	Sep '05
A3 (3) 1.4 TFSI (150 PS)	Feb '15	A5 Cabriolet 2.0 TDI	May '10	A8 3.7 quattro Sport	Jul/Aug '01	TT Roadster (2) 1.8 TFSI (160)	Sep '10
A3 (3) 1.8 TFSI Sport S tronic	Nov '13	A5 Cabriolet 3.0 TDI quattro	Sep '09	A8 4.0 TDI quattro	Oct '03	TT Roadster (2) 1.8 TFSI (160)	Jul '11
A3 Saloon 2.0 TDI	Jan '15	A5 Cabriolet 3.0 TDI quattro	Jul '15	A8 4.2 quattro	Sep/Oct '00	TT Roadster (2) 2.0 TFSI	Sep '07
A3 Sportback 1.4 TFSI	Jul '13	A5 Sportback 2.0 TDI S line	Feb '10	A8 4.2 FSI quattro	Aug '04	TT Roadster (2) 2.0 TDI	Sep '09
A3 Sportback 1.6 Sport	Dec '07	A5 Sportback 2.0 TDI (177)	Sep '14	A8 4.2 TDI	Oct '10	TT Roadster (2) 2.0 TDI quattro 170	Dec '13
A3 Sportback 1.9 TDI	Jan '06	A5 Sportback 2.0 TFSI	Aug '10	A8 4.2 TDI quattro	Dec '10	TT Roadster (2) 3.2 quattro	Jan '08
A3 Sportback 2.0 TFSI S tronic	Aug '07	A5 Sportback 2.0 TFSI quattro	Apr '13	A8L 4.0 TFSI quattro	Mar '06	TT Roadster (3) 2.0 TFSI	Jul '15
A3 Sportback 2.0 TFSI quattro	Sep '05	A5 Sportback 3.0 TDI	May '11	A8L 4.2 quattro	Mar '02	TTS Coupé	Nov '08
A3 Sportback 2.0 TDI	Dec '13			A8L 4.2 TDI quattro	Mar '02	TTS Coupé (272)	Jul '11
A3 Sportback 2.0 TDI S line	May '07	A6 1.8T SE	Jul/Aug '98		May '14	TTS Coupé S tronic	Sep '15
A3 Sportback 2.0 TDI quattro	May '11	A6 1.8T Multitronic	Jan/Feb '02	S3 quattro	Nov/Dec '99	TT RS Coupé	Apr '10
A3 Sportback 2.0 TDI quattro	June '14	A6 1.8T quattro	Sep/Oct '00	S3 (2) quattro	Apr '02	TT RS Roadster	Nov '09
A3 Sportback 3.2 quattro Sport	May '05	A6 1.9 TDI 110	Mar/Apr '99	S3 (3) quattro	Jul '07	TT RS Plus Coupé	Mar '13
A3 Sportback e-tron	June '15	A6 1.9 TDI 115	May/Jun '01	S3 (3) quattro	Jul '07		
A3 Cabriolet 1.6	Jan '11	A6 2.0 TFSI	Jul '10	S3 (4) quattro	Jan '13	Q3 2.0 TFSI quattro	Jul '12
A3 Cabriolet 1.8 TFSI	Aug '09	A6 2.0 TFSI Avant	Nov '06	S3 (2) Sportback	May '15	Q3 2.0 TDI FWD	Jul '13
A3 Cabriolet 1.8 TFSI	Aug '08	A6 2.0 TDI	May '09	S3 (2) Sportback	Mar '10	Q3 2.0 TDI FWD	Feb '14
A3 Cabriolet 1.8 TFSI	Nov '11	A6 2.0 TDI SE	Sep '12	S3 (2) Sportback	Dec '11	Q3 2.0 TDI SE	Jan '12
A3 Cabriolet 2.0 TDI	Jan '10	A6 2.4 SE Tiptronic	Mar '05	S3 (3) Sportback	Dec '11	Q5 2.0 TFSI	Jun '09
A3 Cabriolet (2) 2.0 TDI	May '14	A6 2.5 TDI SE	May/Jun '98	S4 quattro	Jun '14	Q5 2.0 TDI	Jan '10
A4 1.8T Sport	N/D '97	A6 2.8 SE	Jun '03	S4 quattro (V8)	Jun '14	Q5 3.0 TDI S line	Aug '10
A4 1.9 TDI 110 SE	M/A '98	A6 2.8 FSI	Nov/Dec '97	S4 quattro (V8)	Mar/Apr '99	Q5 3.2 FSI	Nov '11
A4 2.4 SE	J/F '99	A6 3.0 TDI quattro	Sep '07	S4 quattro (facelift)	Dec '03	S05 TDI	Aug '13
A4 3.0 quattro automatic	M/J '98	A6 3.0 TDI quattro SE	Jan '05	S4 quattro (facelift)	Jul '04	S05 TDI	Apr '15
A4 quattro	J/F '99	A6 3.0 TDI quat S line Sp. Ed.	Jun '12	S4 (4) quattro	Jul '05	Q7 3.0 TDI	Oct '06
A4 Avant 1.8T Sport	N/D '98	A6 3.0 BITDI quattro SE	Sep '10	S4 (4) quattro	Oct '09	Q7 3.0 TDI S line (272 PS)	Jan '16
A4 Avant 1.8T Sport	J/A '00	A6 3.0 FSI	Oct '12	S4 Avant quattro	Jul/Aug '99	Q7 3.0 TDI Clean Diesel	Mar '10
A4 Avant 1.8T quattro Sport	S/O '99	A6 3.2 FSI quattro SE	Nov '10	S4 (4) Avant quattro	Jul '09	Q7 3.6	Apr '08
A4 Avant 2.5 TDI quattro	N/D '98	A6 4.2 quattro, Avant/Saloon	Mar '05	S4 Cabriolet	Apr '11	Q7 4.2	May '07
A4 Avant 2.8 quattro, Tiptronic	M/J '99	A6 4.2 quattro	Nov/Dec '99	S5 quattro	Oct '05	Q7 6.0 TDI	Mar '12
A4 (2) 1.8T	Apr '03	A6 4.2 quattro	Nov '05	S5 quattro	Feb '08		
A4 (2) 1.8T S-Line	Sep '04	A6 Hybrid	Jun '13	S5 Sportback quattro	Aug '11	R8 V8 Coupé manual	Dec '08
A4 (3) 1.8T quattro	Jun '07	A6 Avant 1.8T Multitronic	Jul '02	S5 Cabriolet	Oct '11	R8 V8 Coupé manual	Jun '13
A4 (5) 1.8 TFSI	Apr '11	A6 Avant 2.0 TDI	Feb '12	S6 quattro	Oct '12	R8 V10	Jun '10
A4 (2) 1.9 TDI Sport	J/A '01	A6 Avant 2.0 TDIe	Mar '09	S6 quattro	May/Jun '02	R8 V10 plus	Apr '15
A4 (2) 2.0 FSI	Feb '03	A6 Avant 2.0 SE	May '04	S6 quattro V10	May '03	R8 V10 Spyder manual	May '10
				S6 Avant quattro	May/Jun '00	R8 V8 Spyder manual	Sep '11

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In the next issue...



Next month in Audi Driver, we'll be road-testing the A3 1.6 TDI (110) and the 190 PS 2.0 TDI A6 Avant ultra as well as investigating applications of the electric supercharger and the latest quattro technology from Audi. And on the historic side of things, Darron Edwards will be looking at the special features of the 1983-84 Ur quattro and we'll be featuring the recently restored Milltek Sport Ur quattro.

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